PM016 (Additional) – 28 March 2024
Update on PINNs

Application to Urban Wind Field Dispersion Studies

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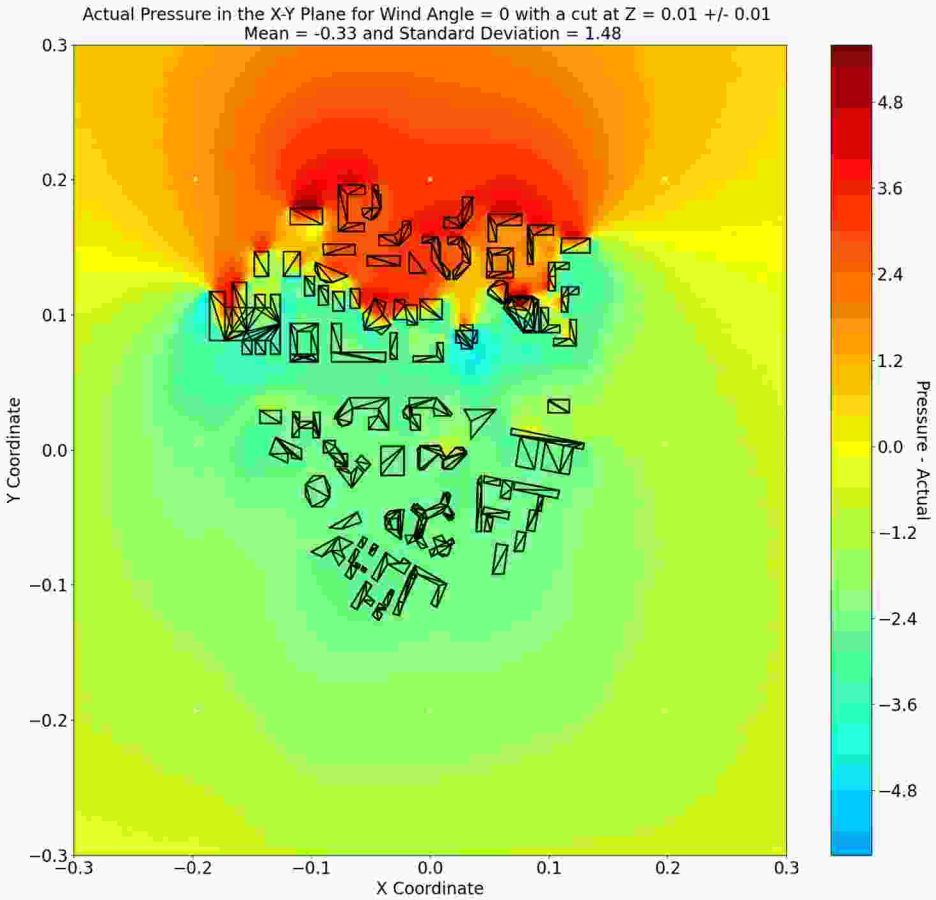
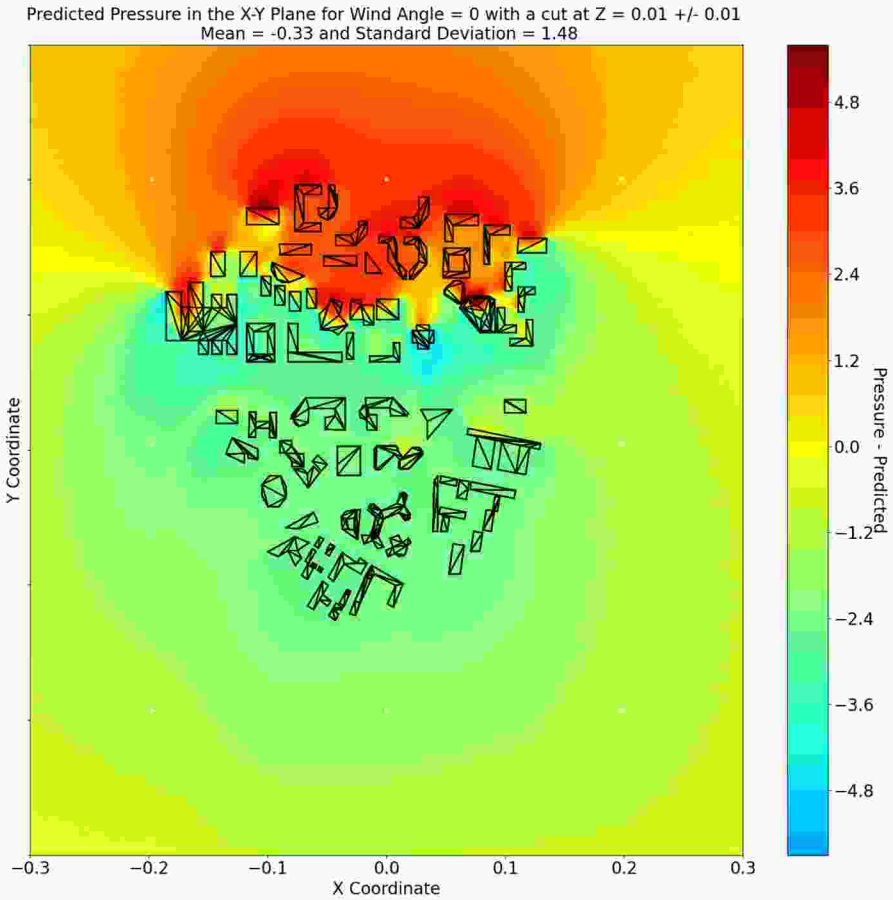
Progress so far - Data Loss Only Standard Normal Scalar – ELU Activation (Adam Optimizer)

POD Dataset, GPU Laptop
103900 Epochs

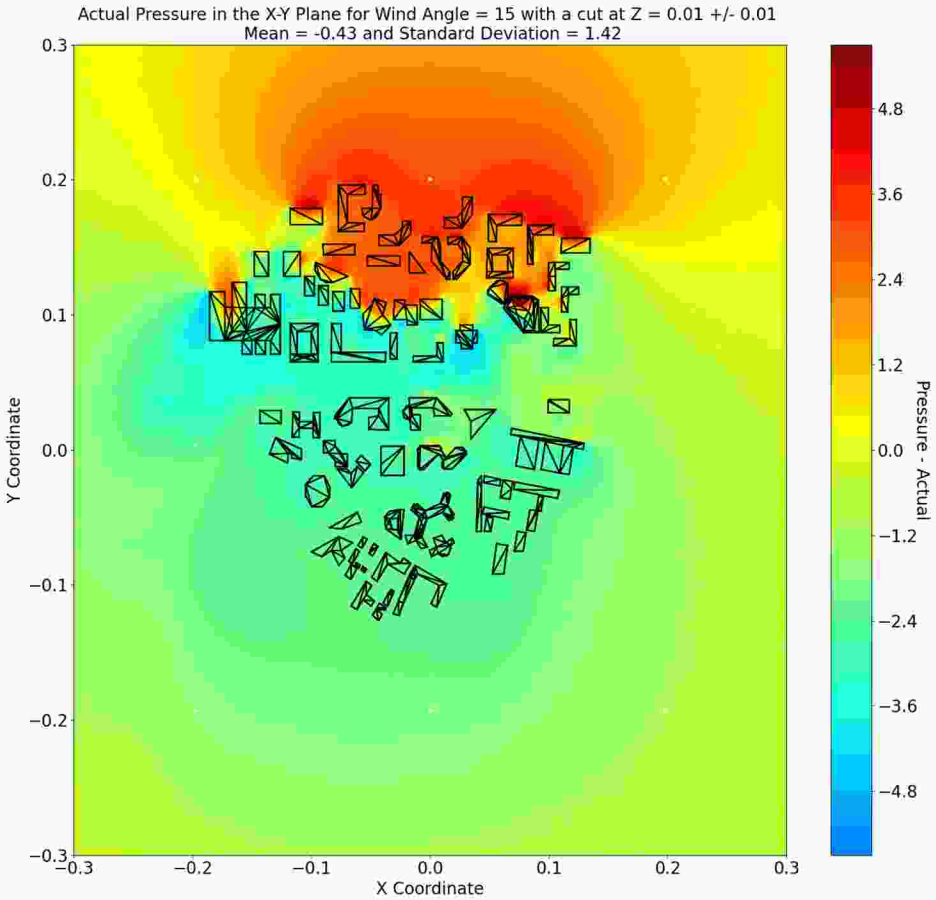
Scripts v5 – TESTING

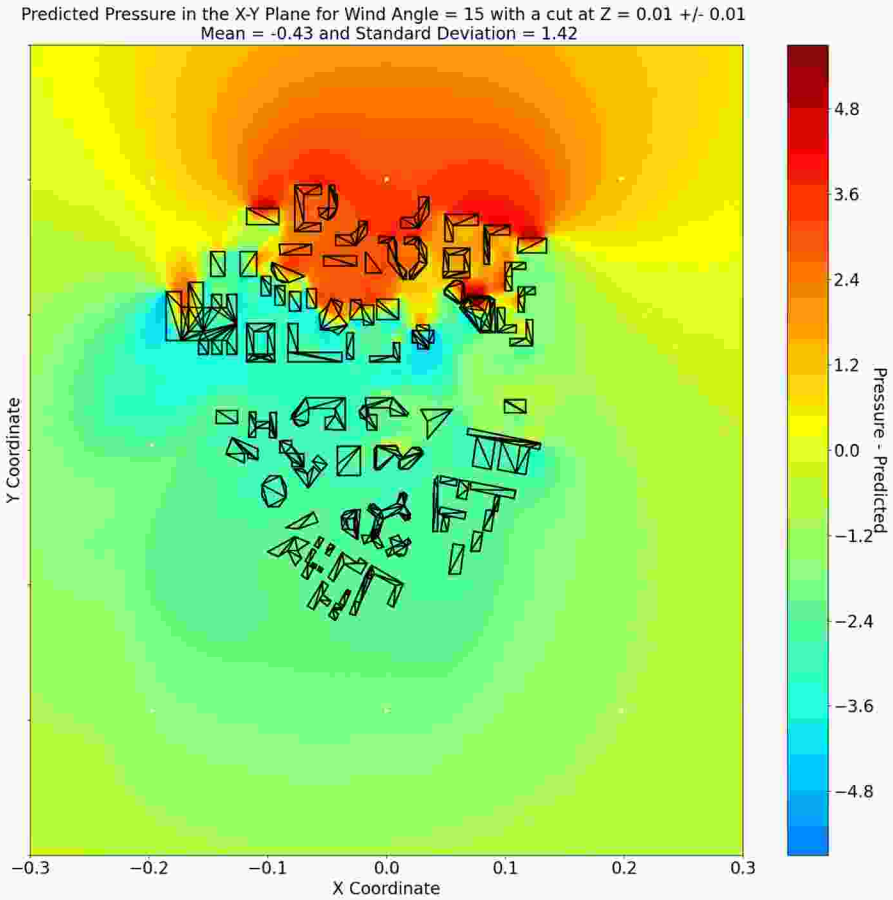
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



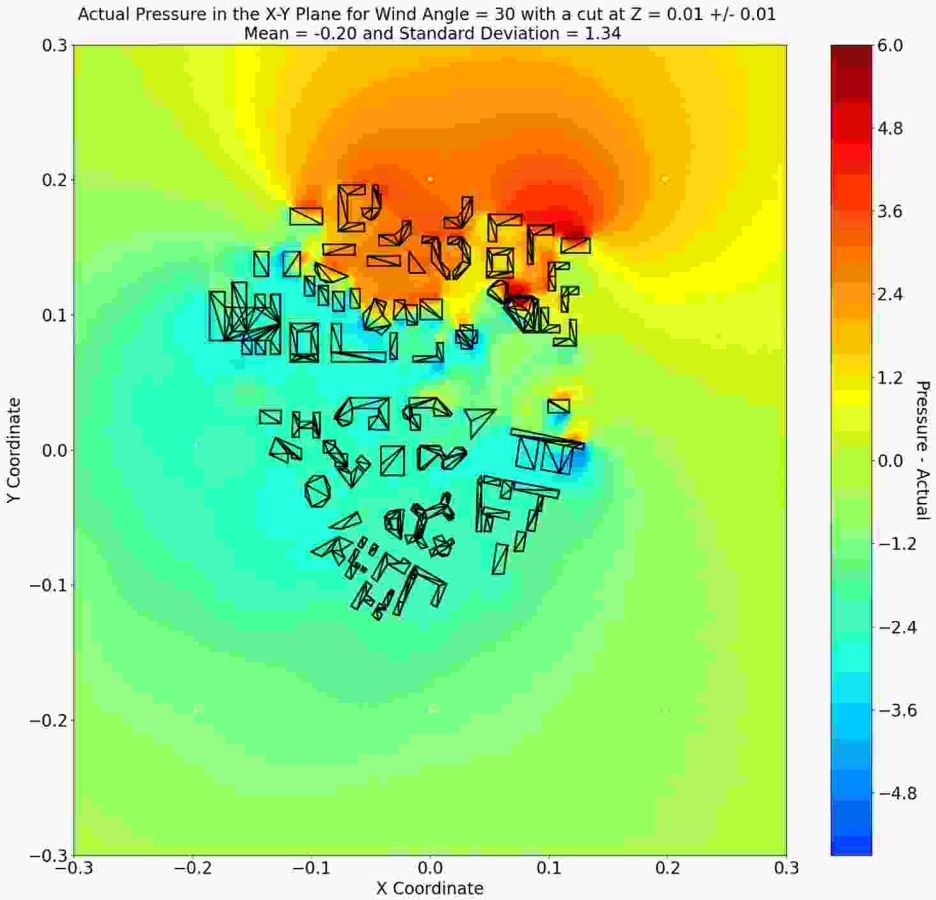


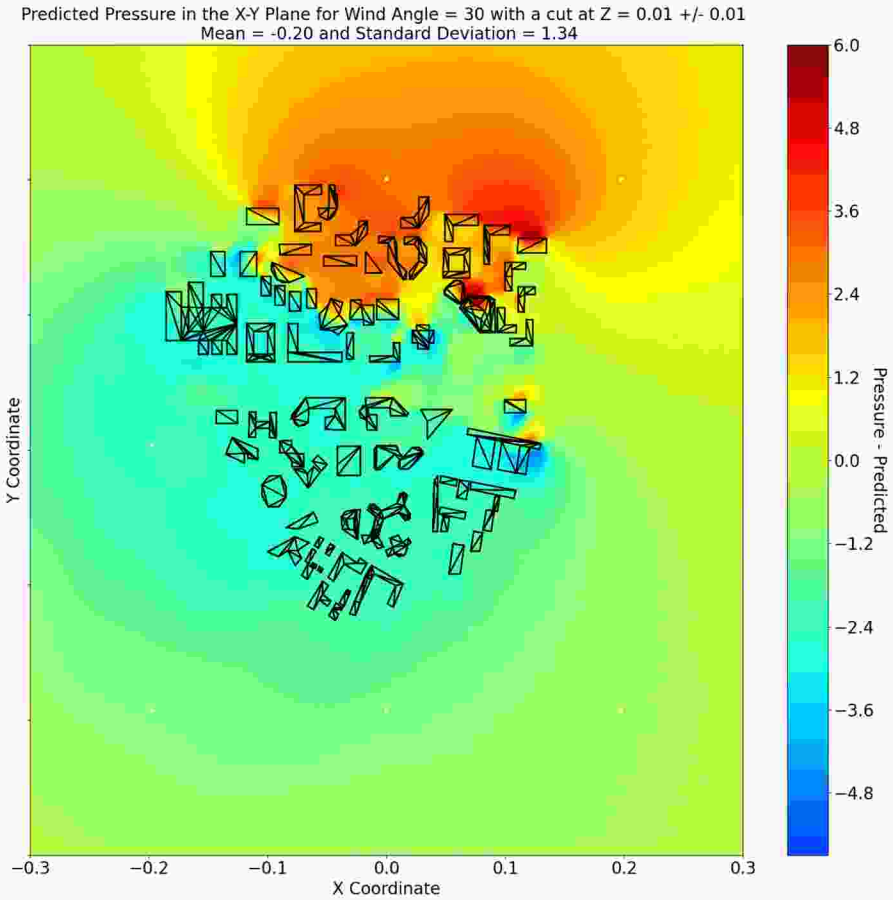
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



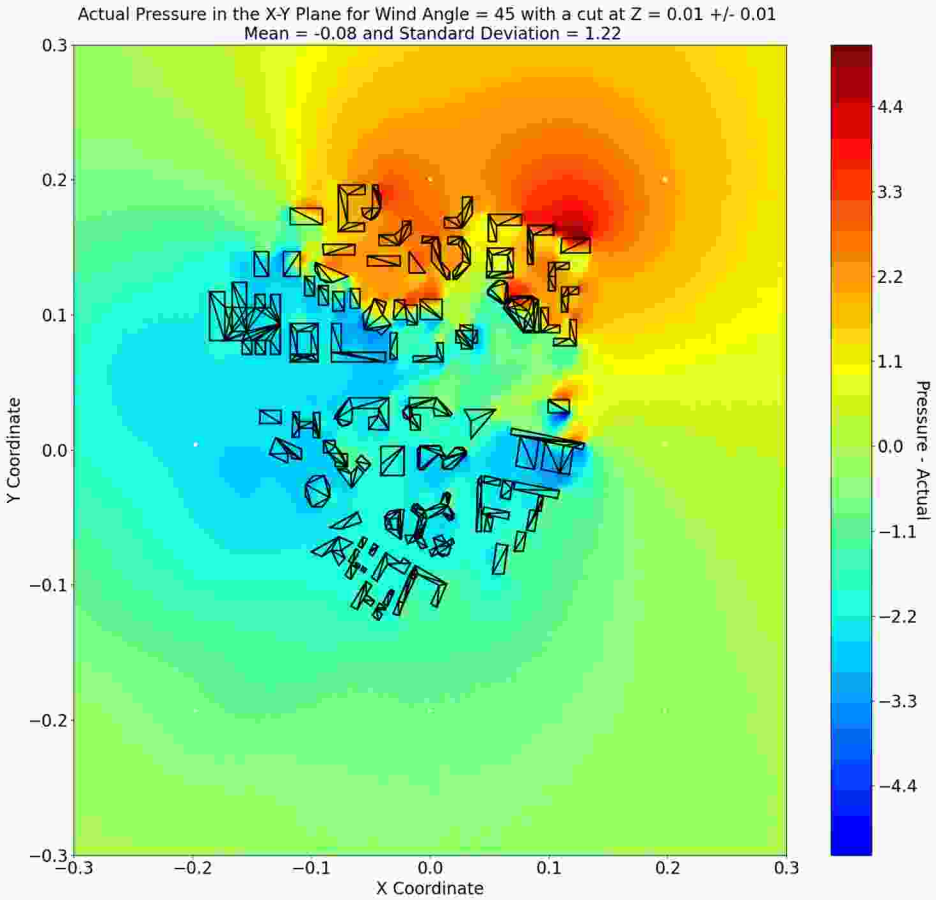


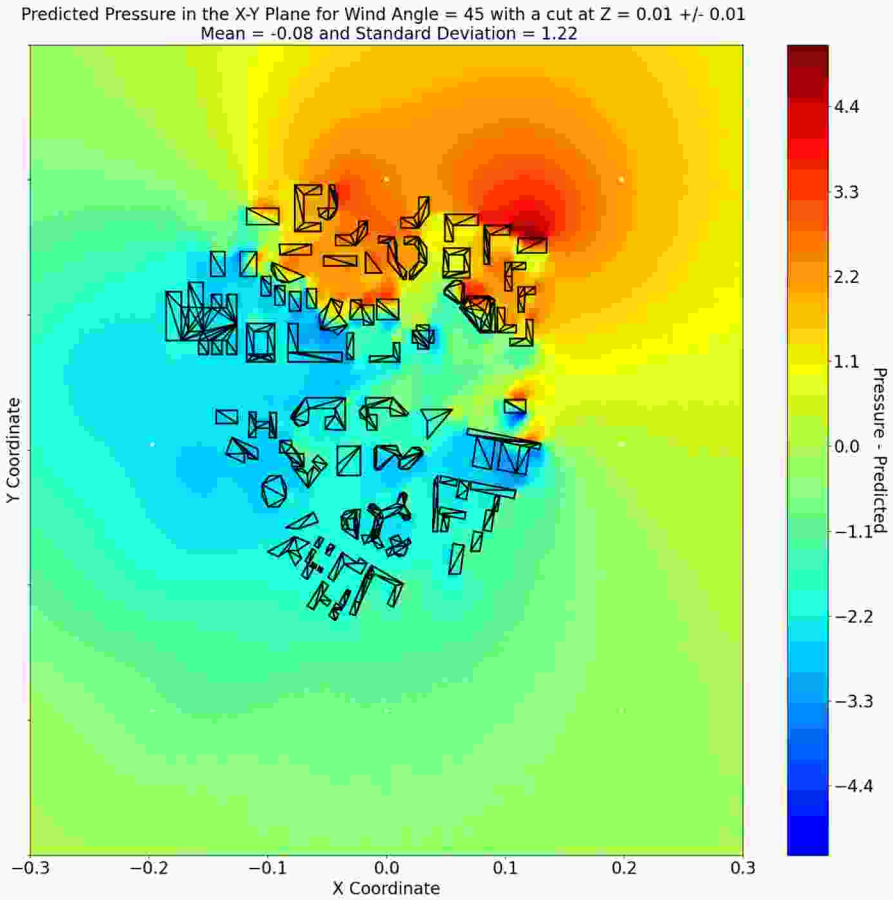
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



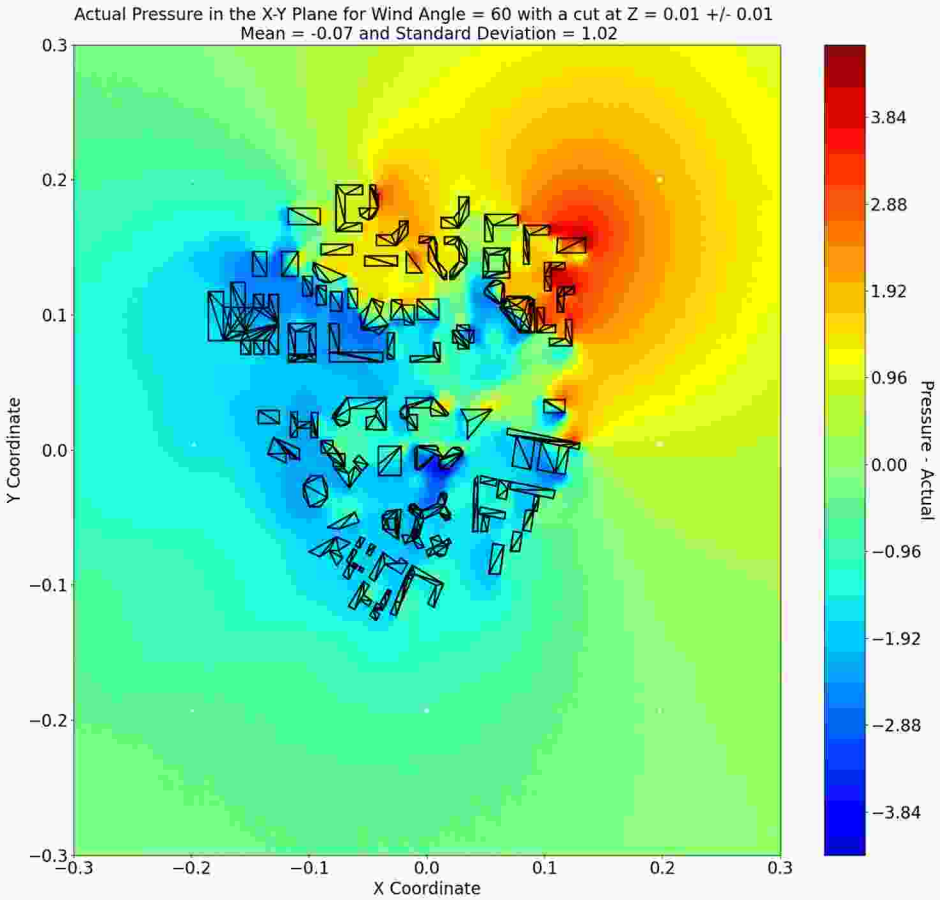


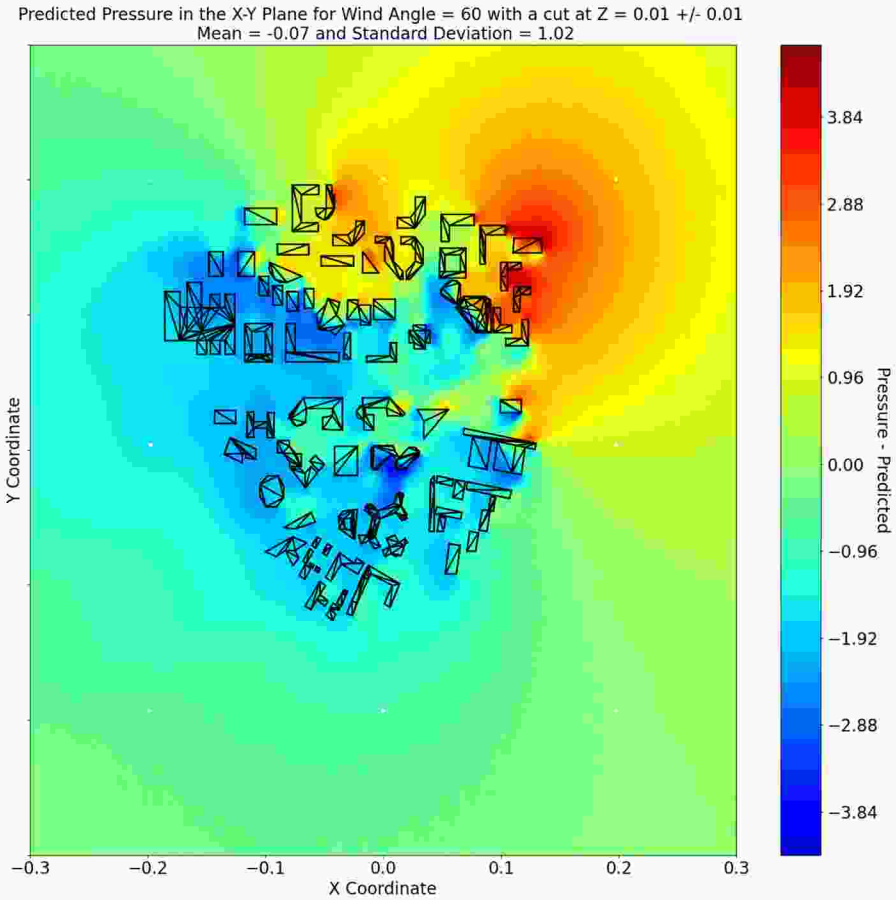
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



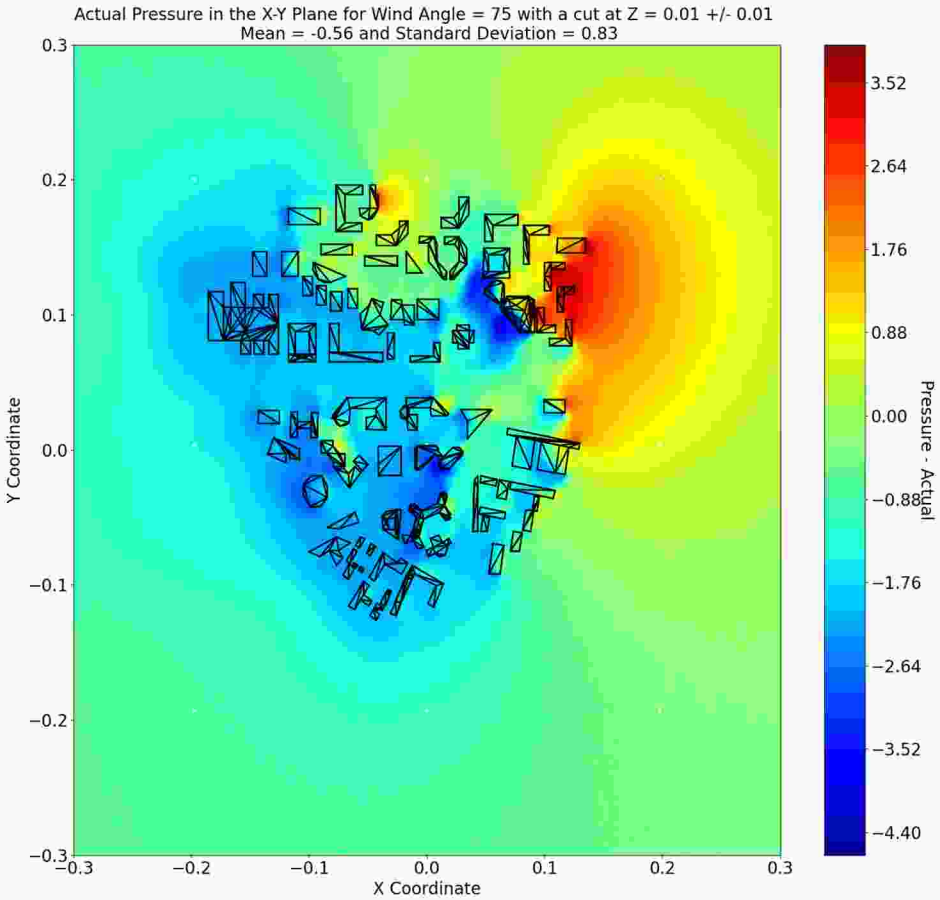


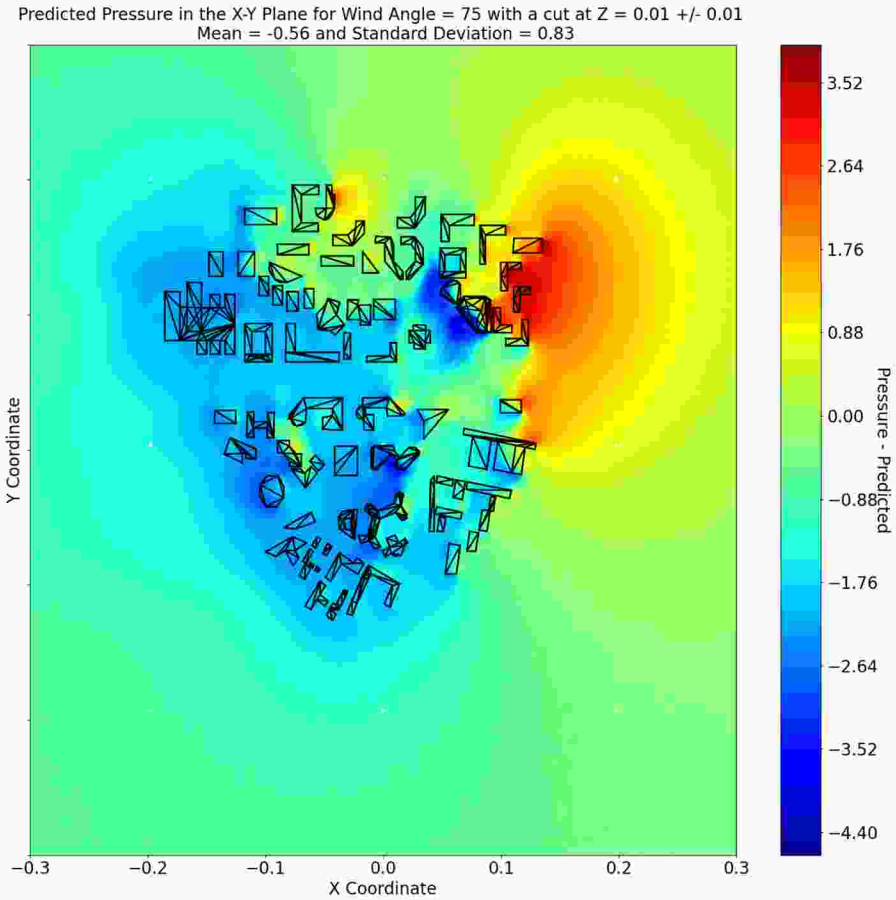
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

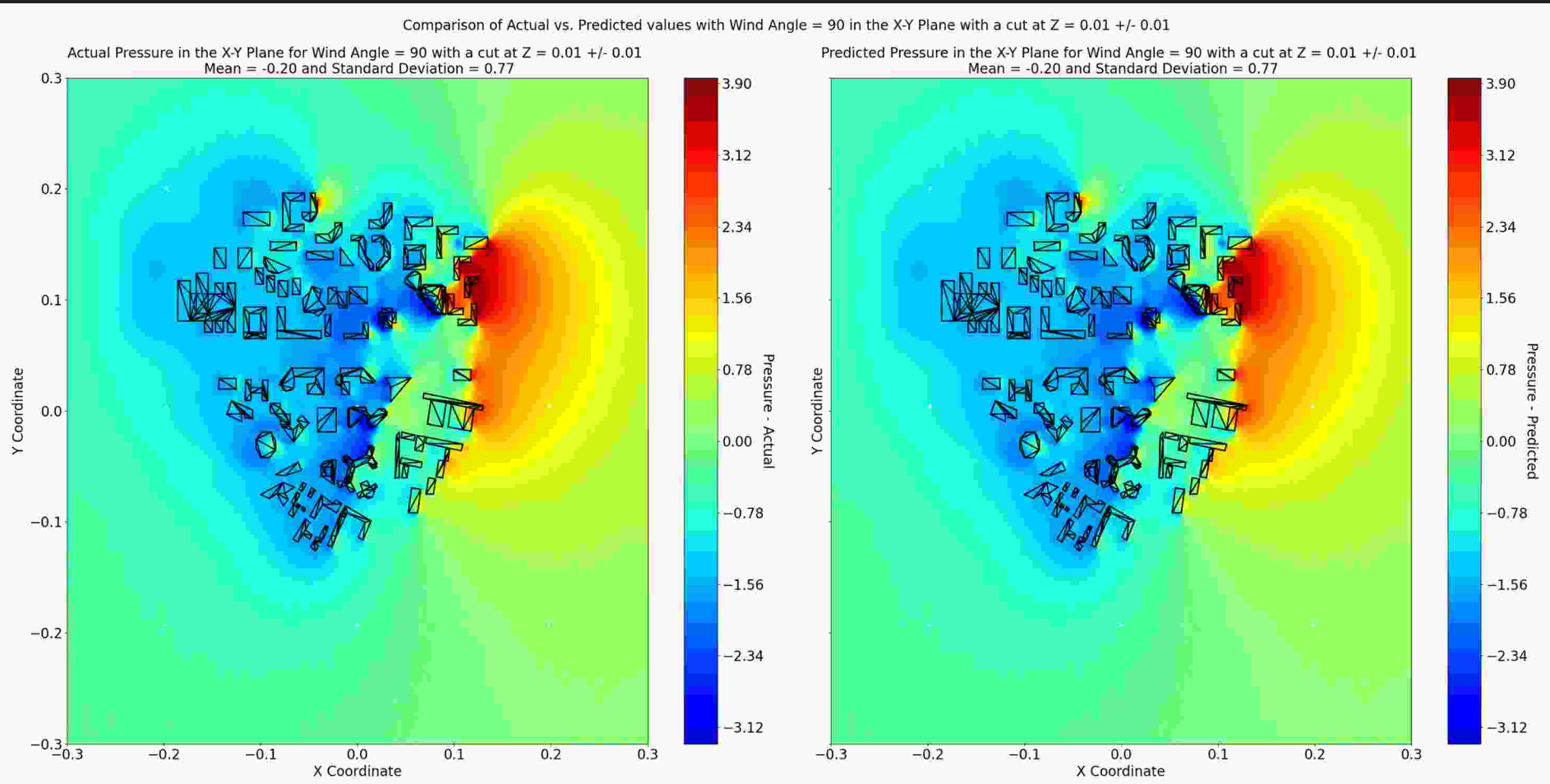




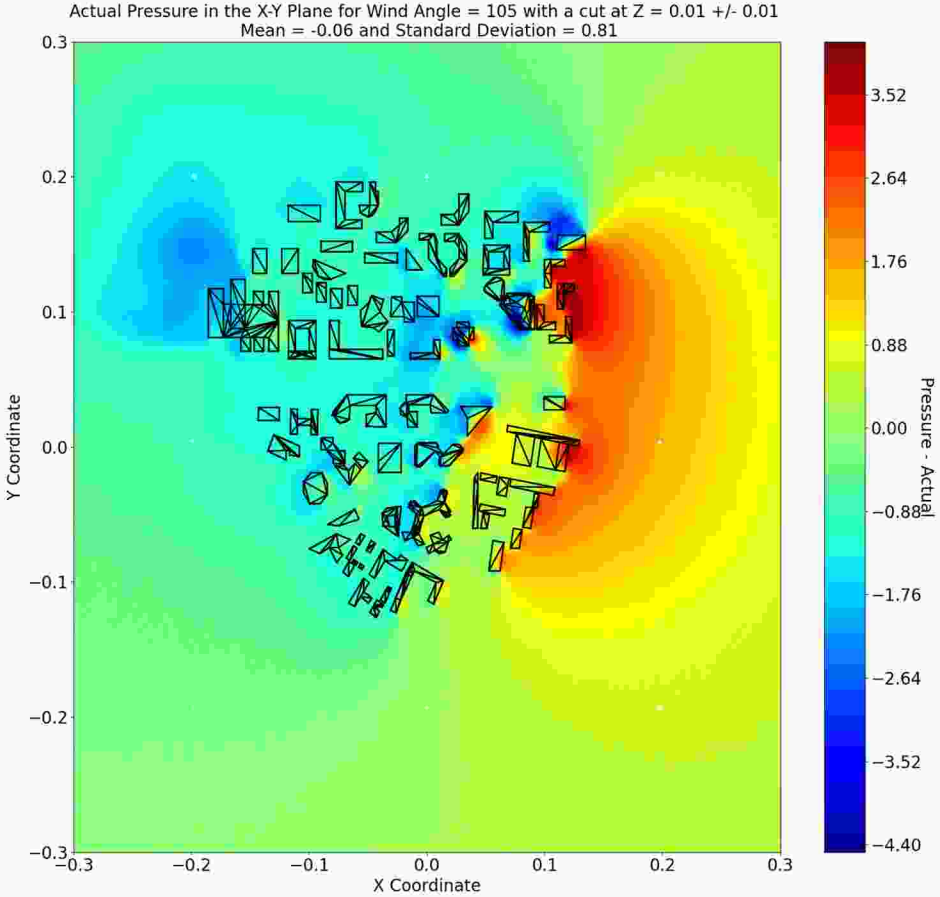
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

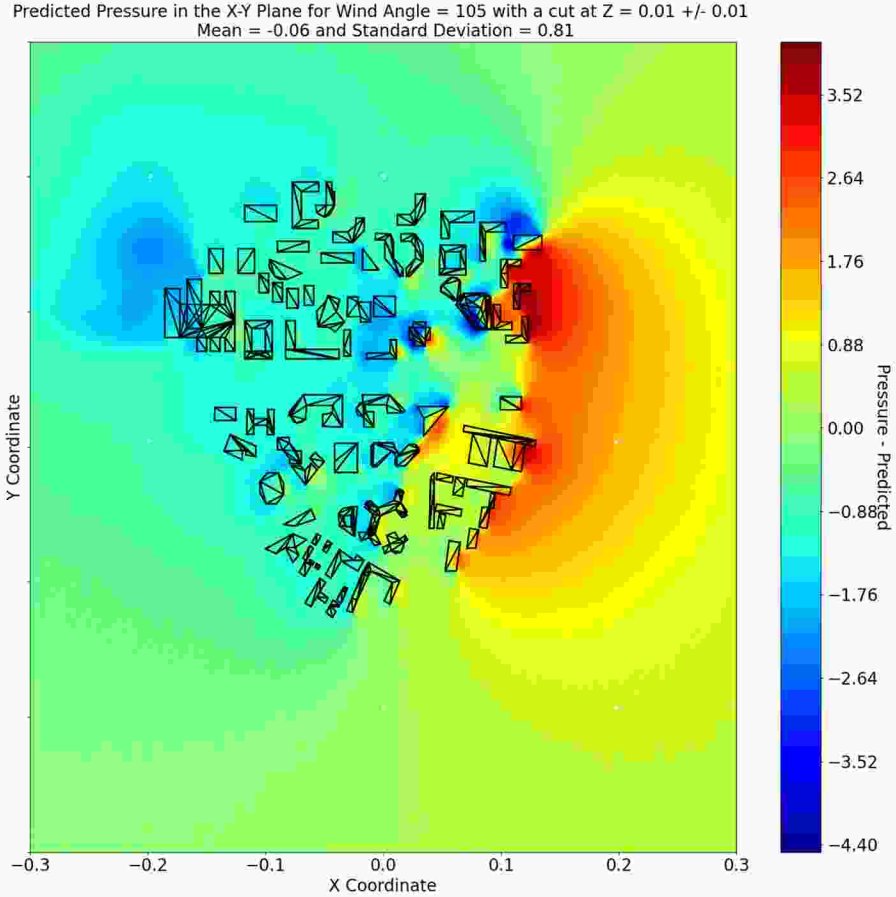




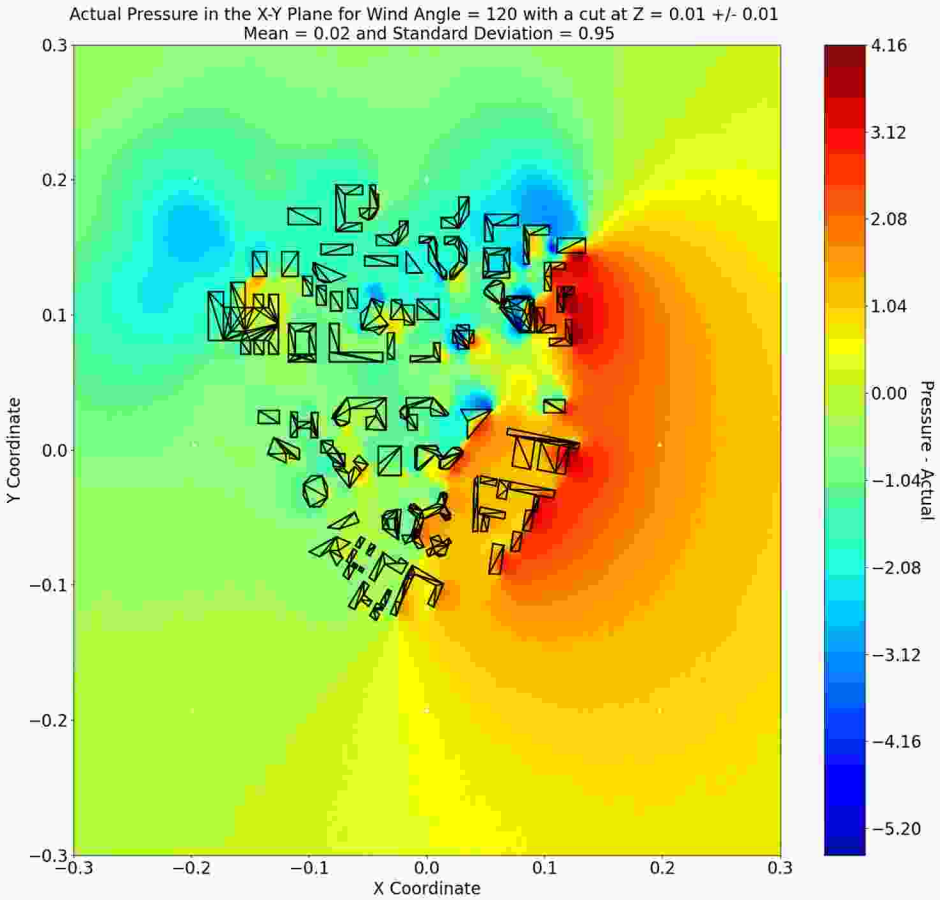

Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual Pressure in the X-Y Plane for Wind Angle = 90 with a cut at Z = 0.01 +/- 0.01
Mean = -0.20 and Standard Deviation = 0.77
Predicted Pressure in the X-Y Plane for Wind Angle = 90 with a cut at Z = 0.01 +/- 0.01
Mean = -0.20 and Standard Deviation = 0.77
Y Coordinate
X Coordinate
Pressure - Actual
Pressure - Predicted
3.90
3.12
2.34
1.56
0.78
0.00
−0.78
−1.56
−2.34
−3.12
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3

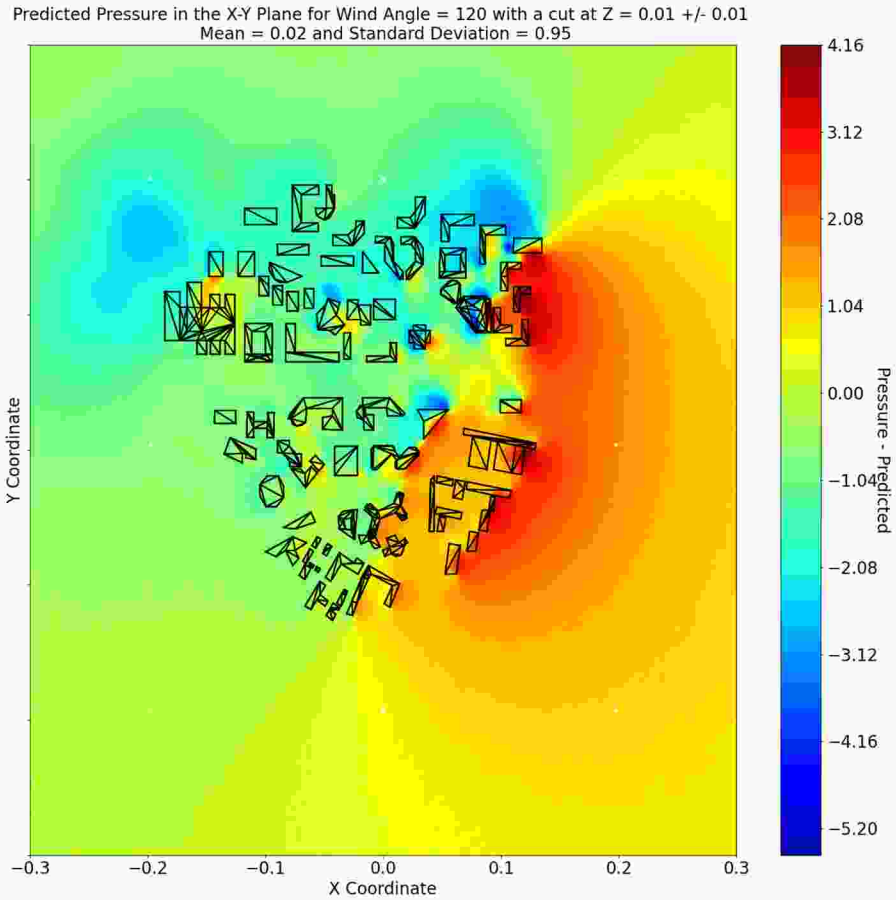
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



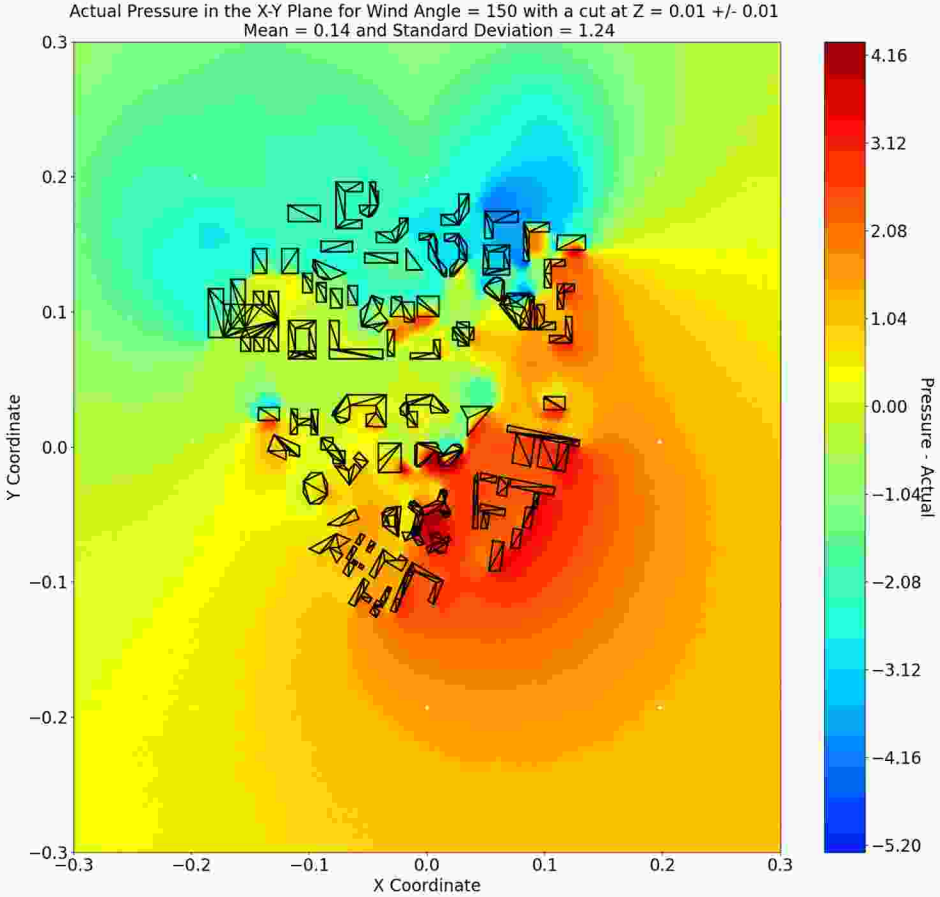


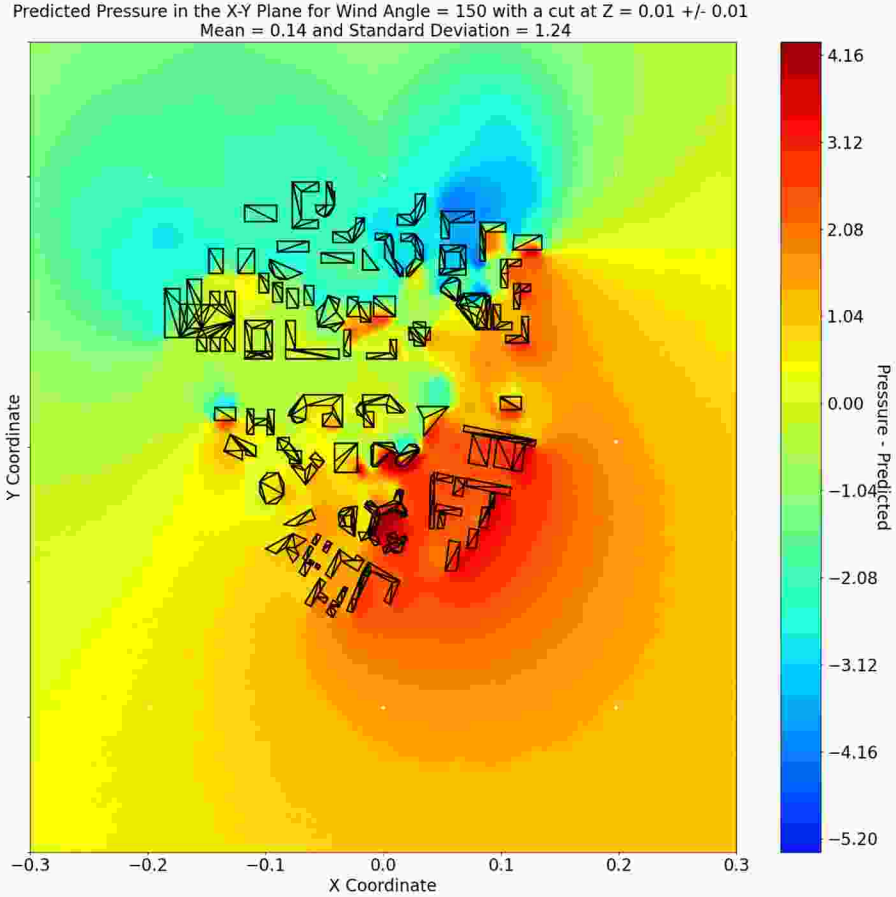
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

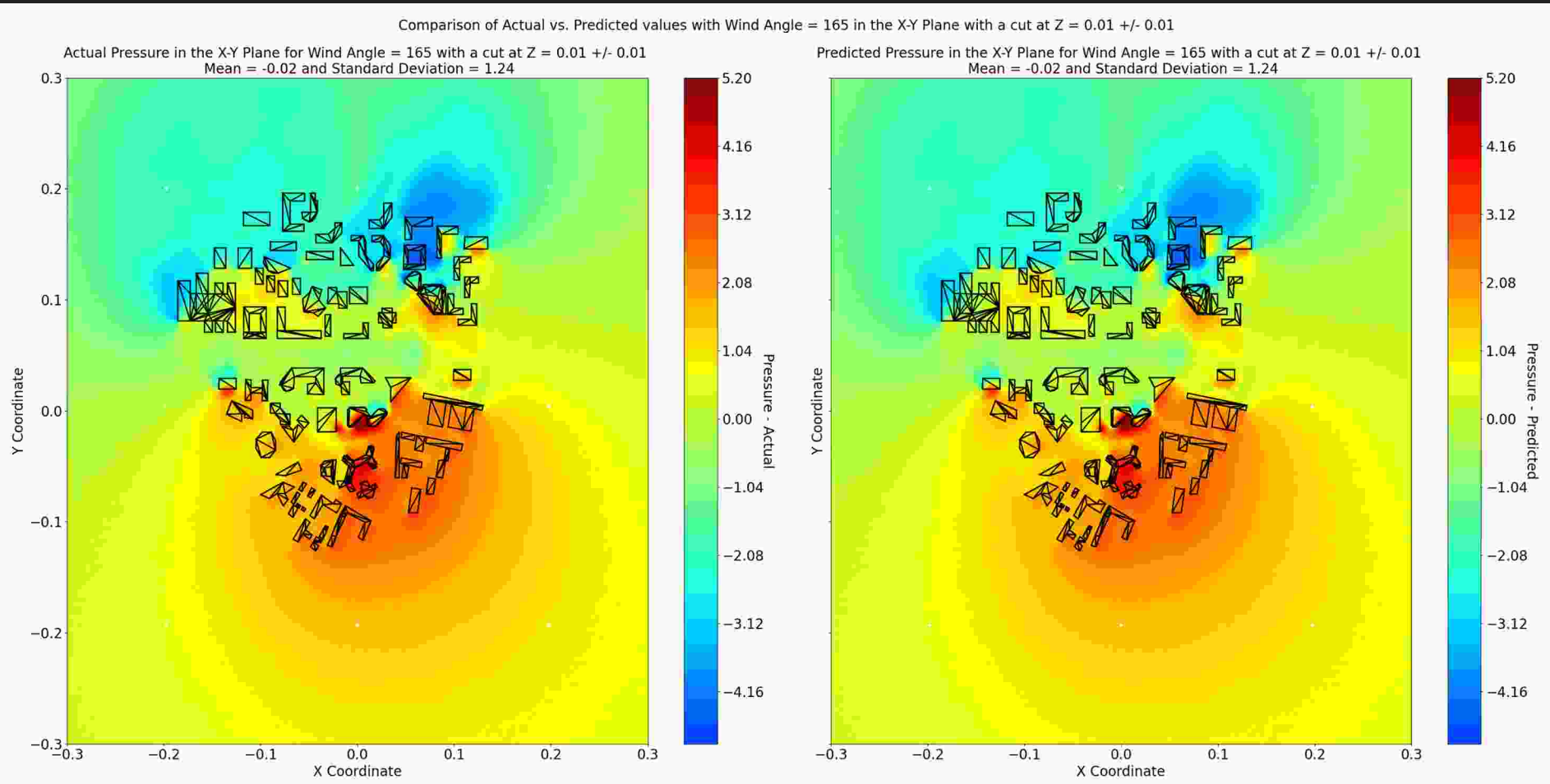




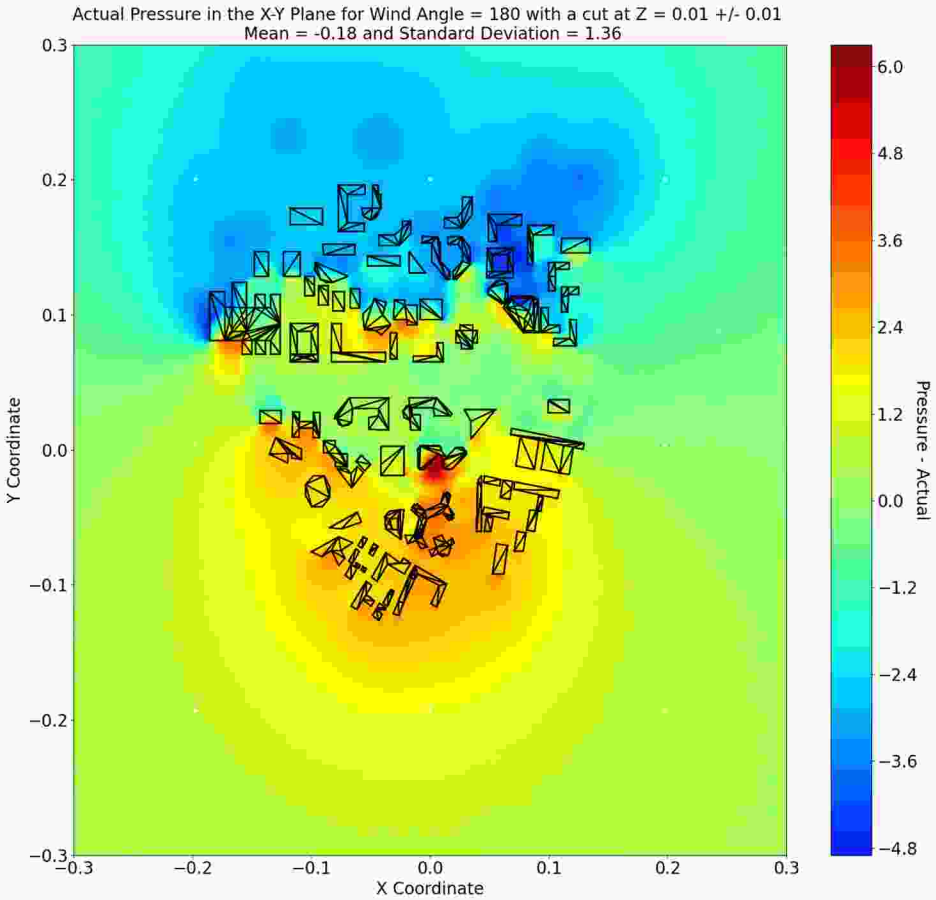
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

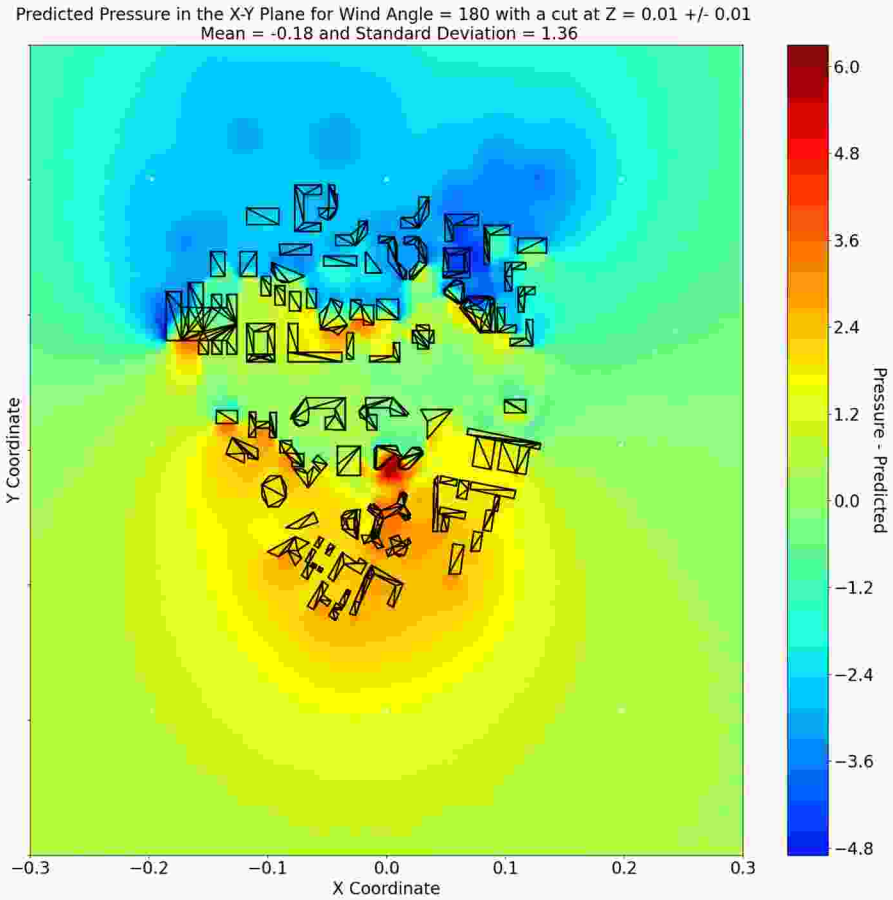




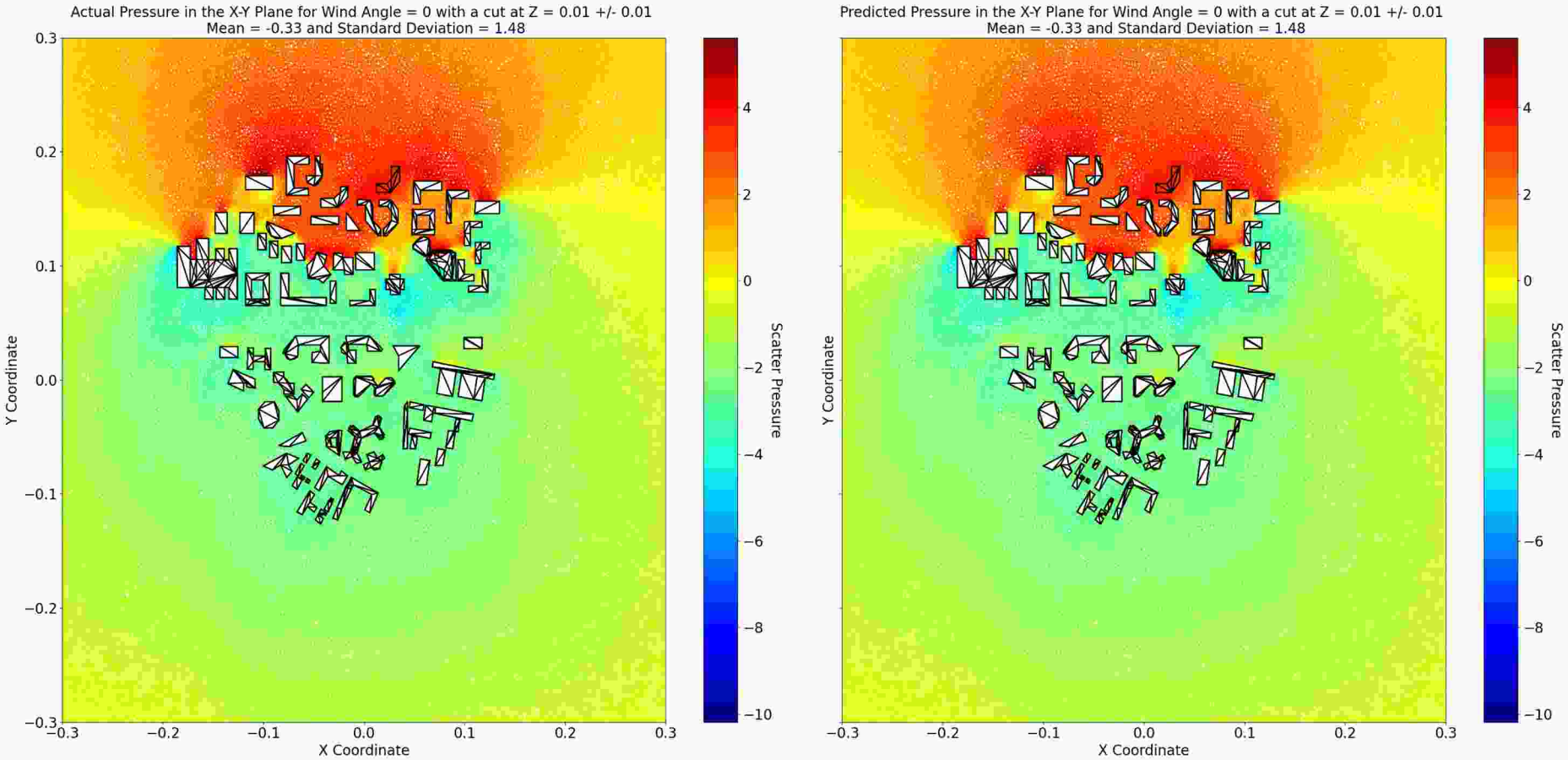

Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual Pressure in the X-Y Plane for Wind Angle = 165 with a cut at Z = 0.01 +/- 0.01
Mean = -0.02 and Standard Deviation = 1.24
Predicted Pressure in the X-Y Plane for Wind Angle = 165 with a cut at Z = 0.01 +/- 0.01
Mean = -0.02 and Standard Deviation = 1.24
Y Coordinate
X Coordinate
Pressure - Actual
Pressure - Predicted
5.20
4.16
3.12
2.08
1.04
0.00
−1.04
−2.08
−3.12
−4.16
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3

Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

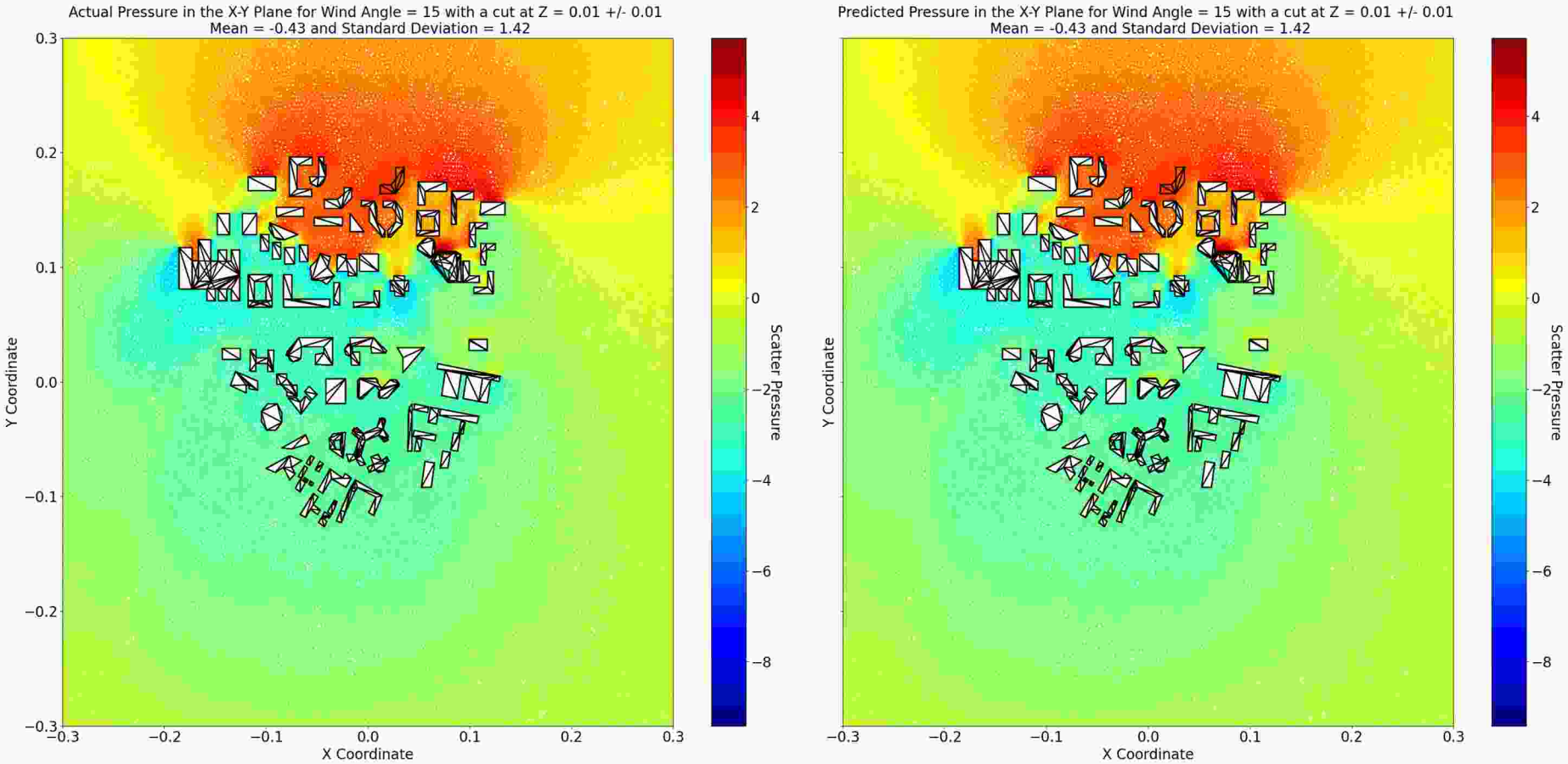




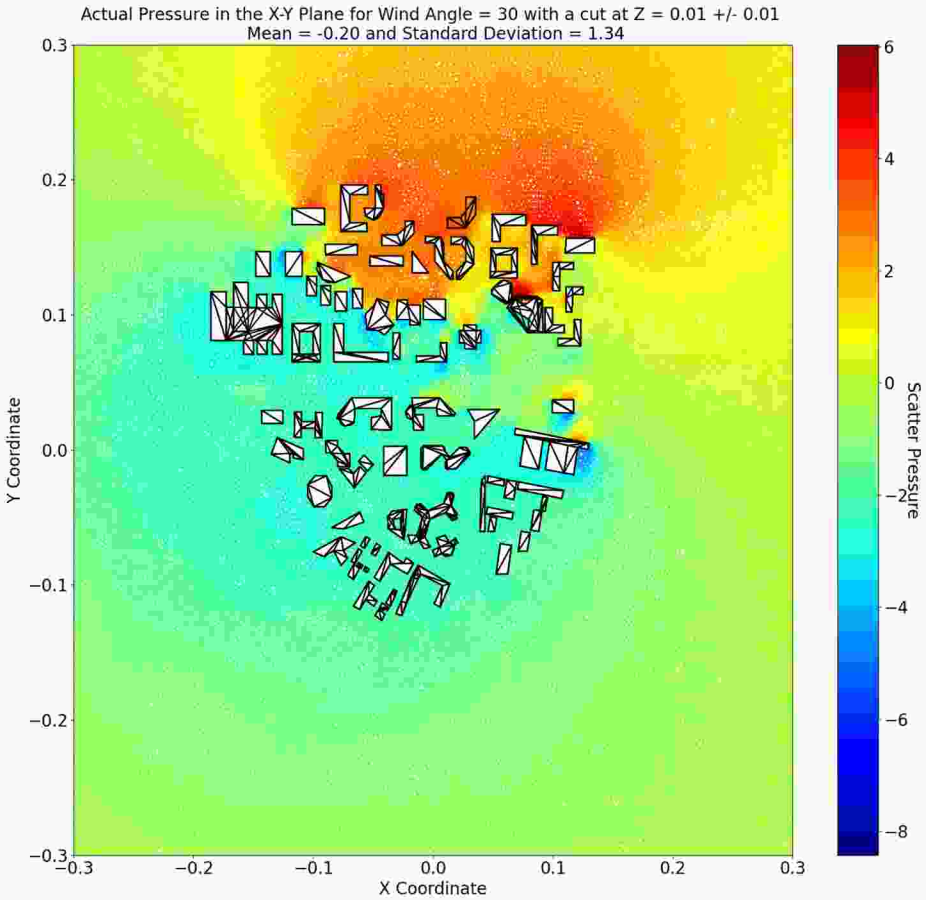
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

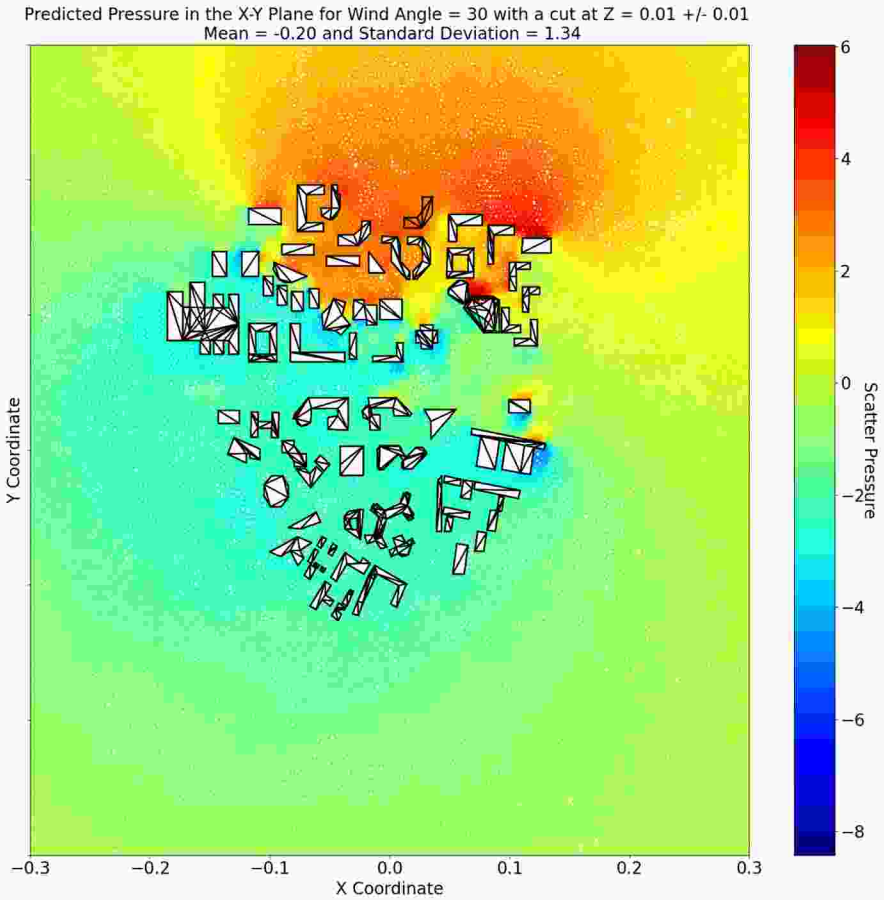


Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

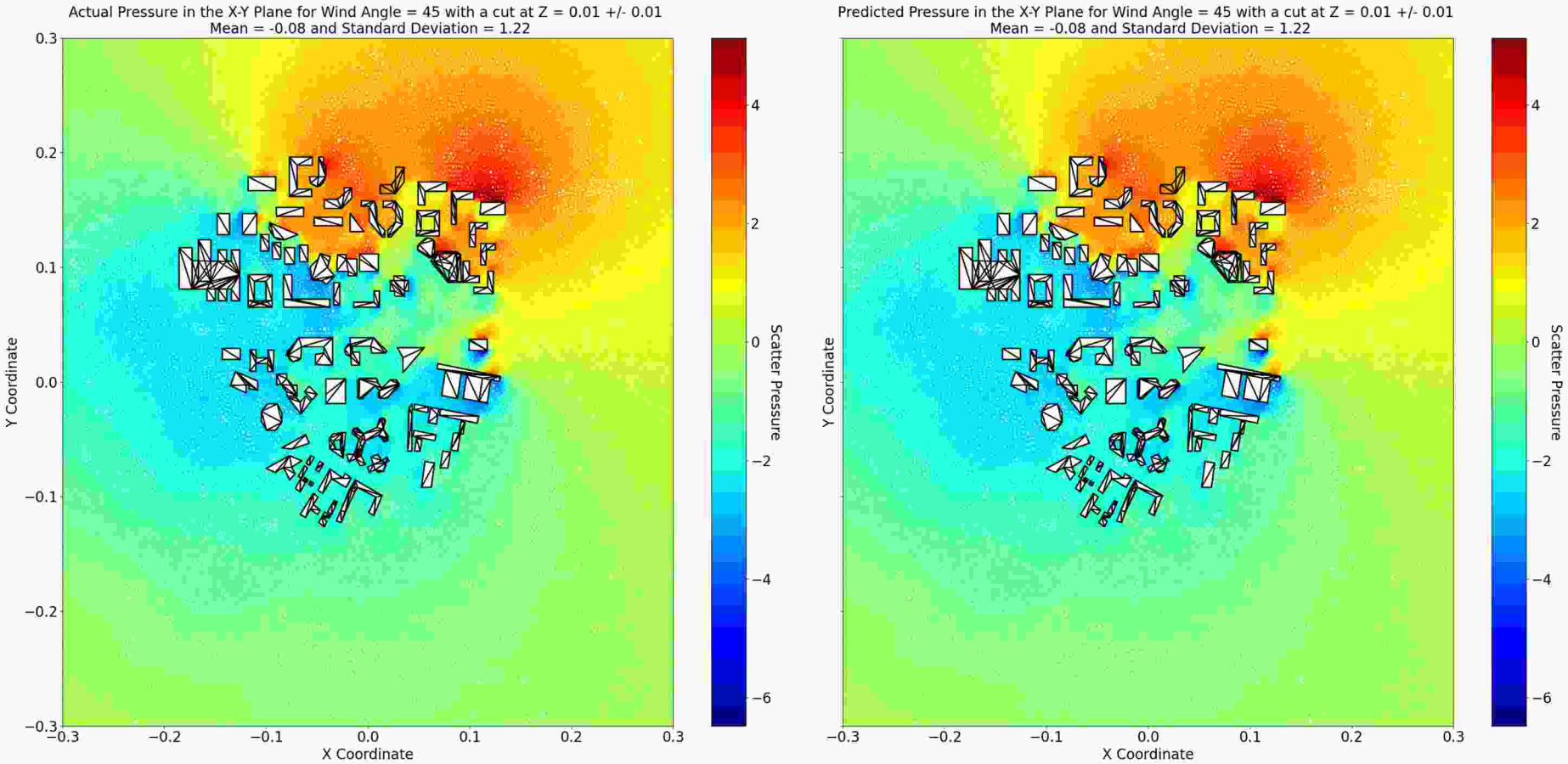


Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

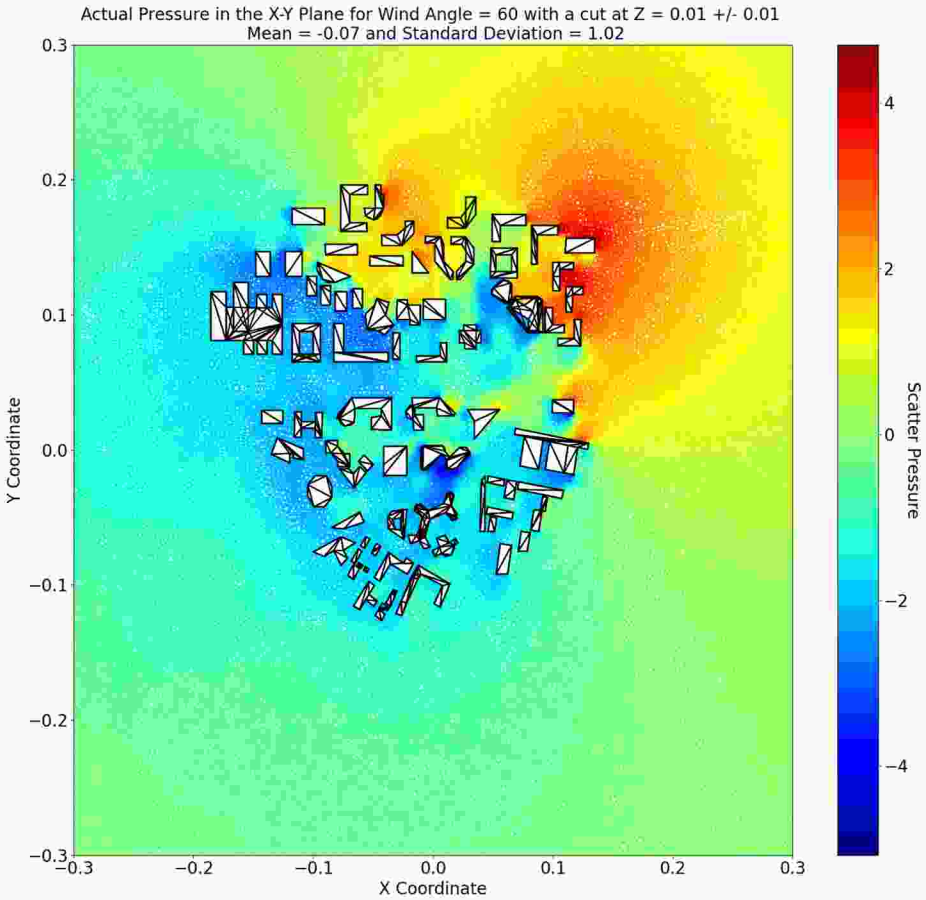


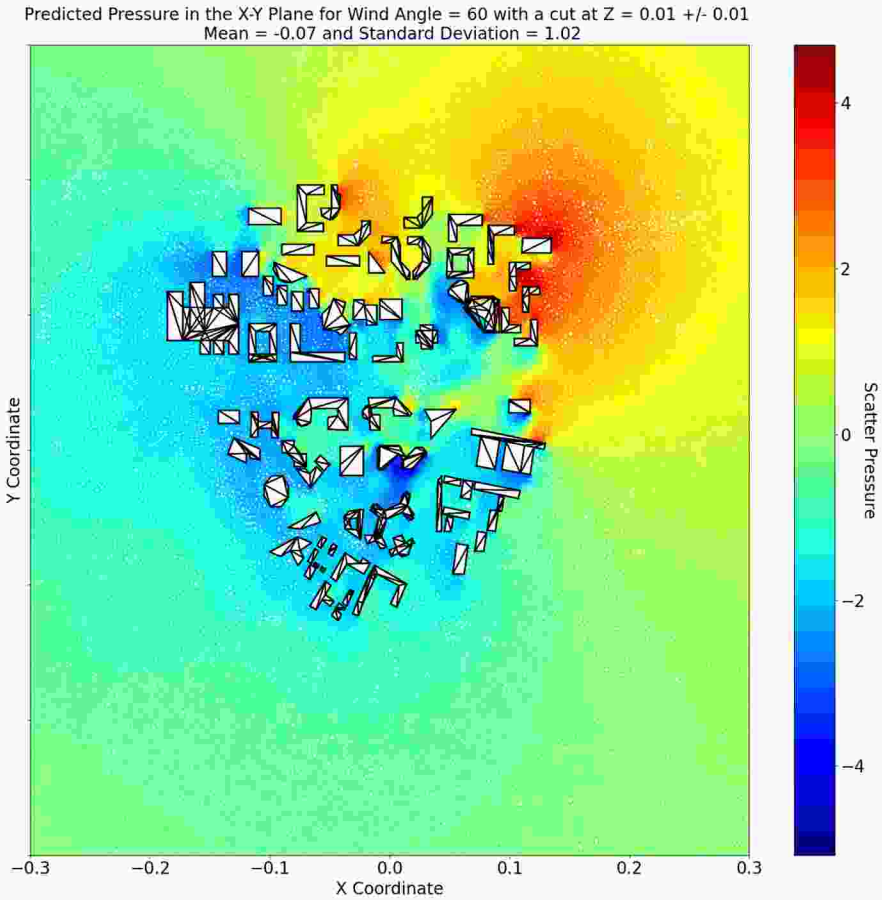


Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

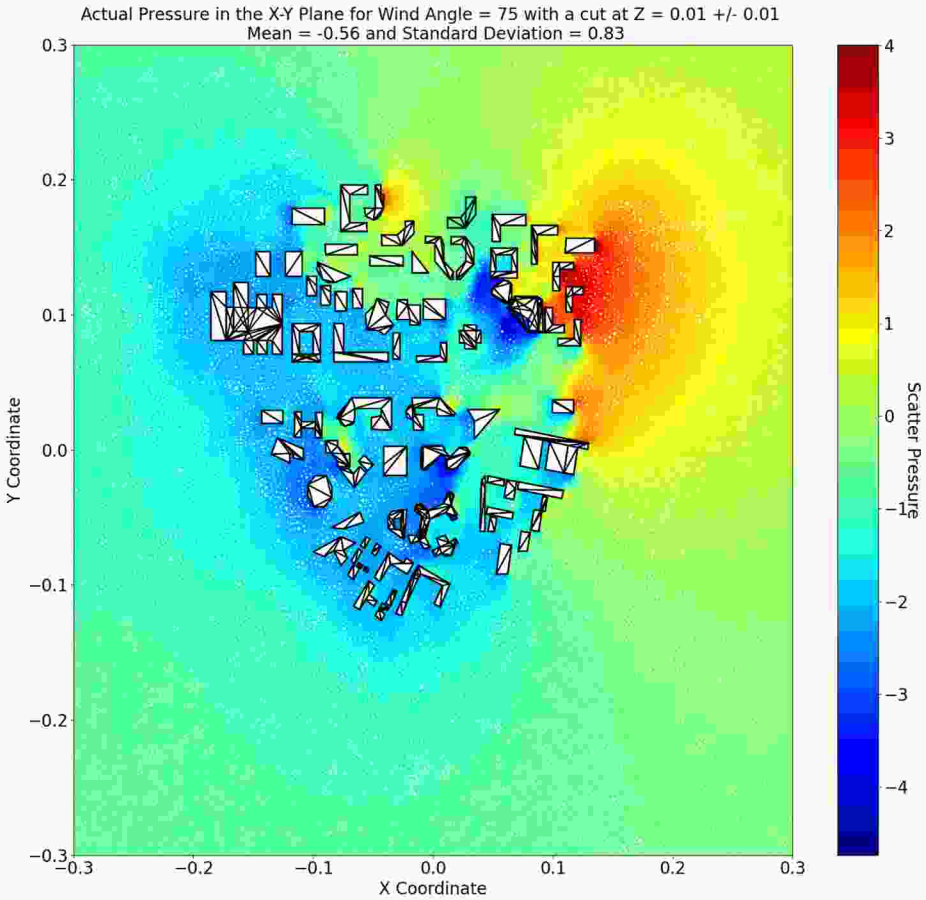


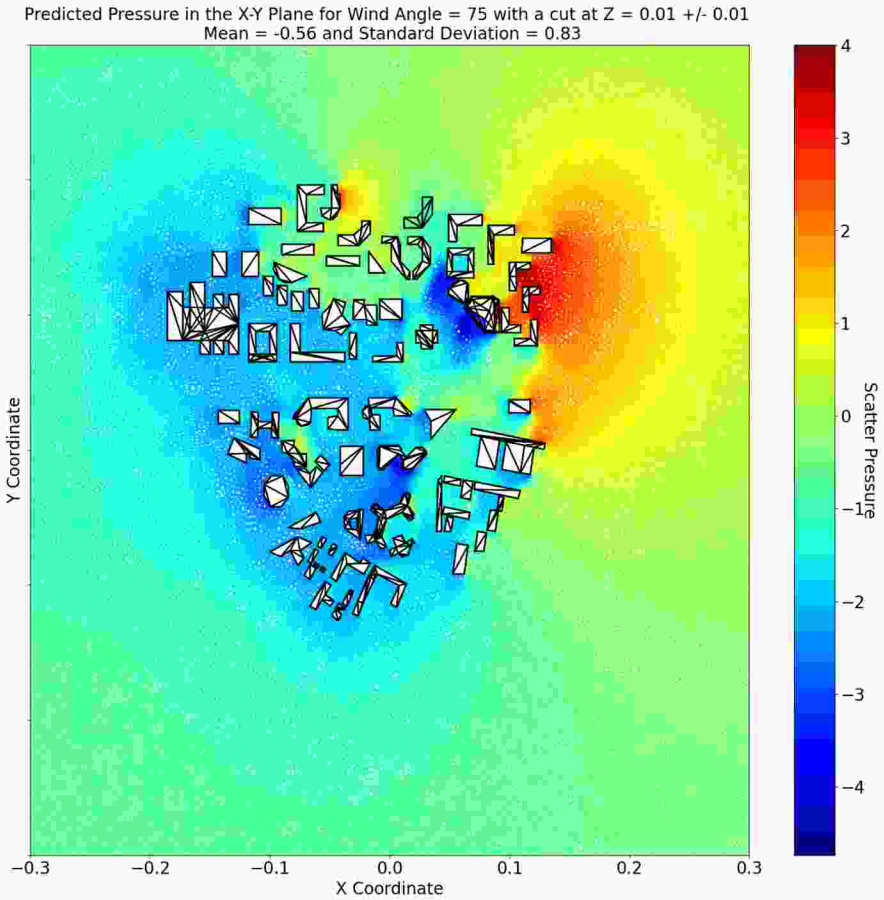
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



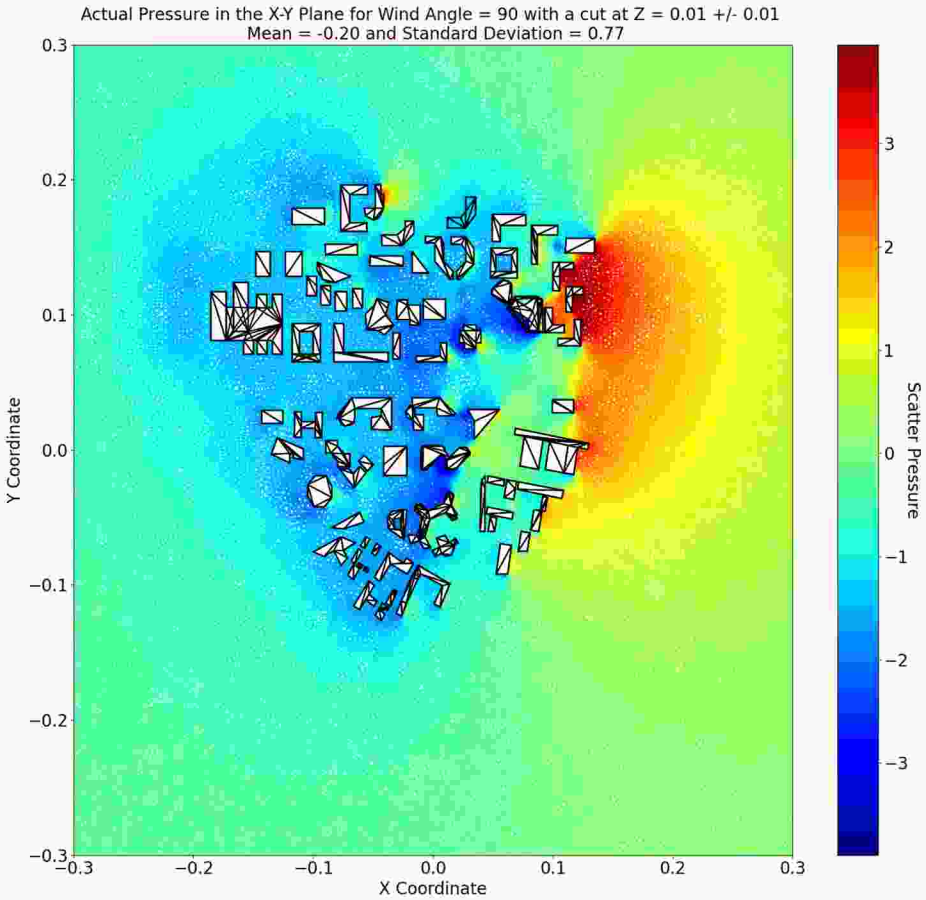


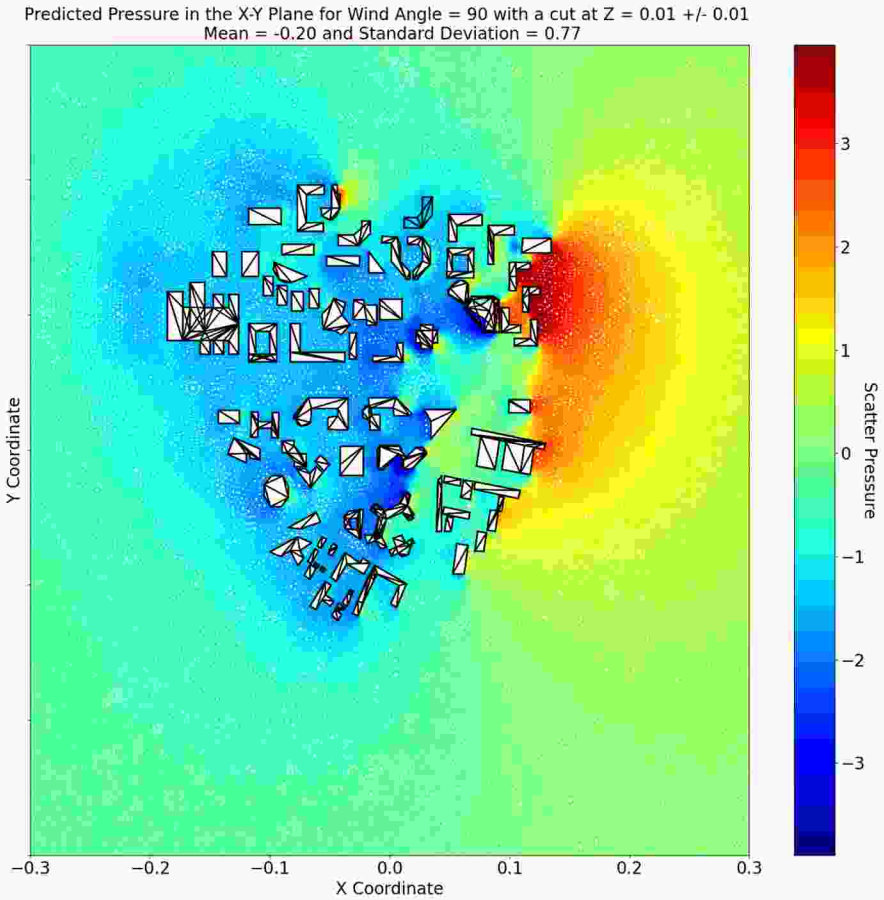
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



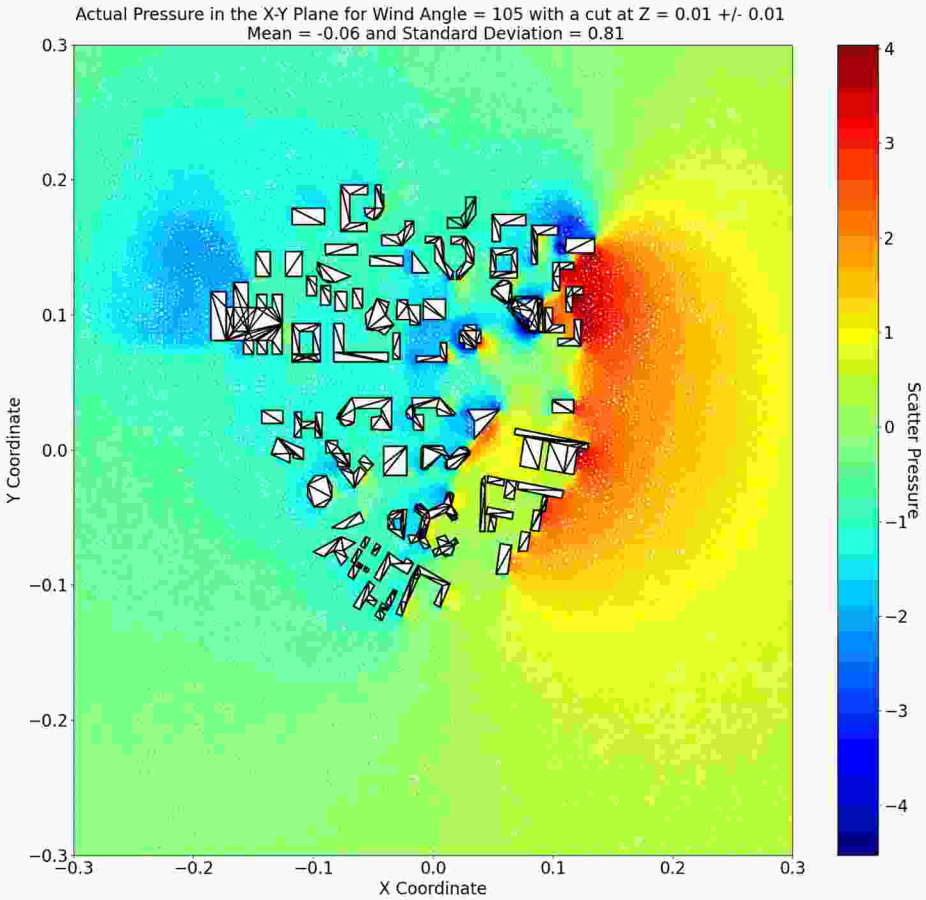


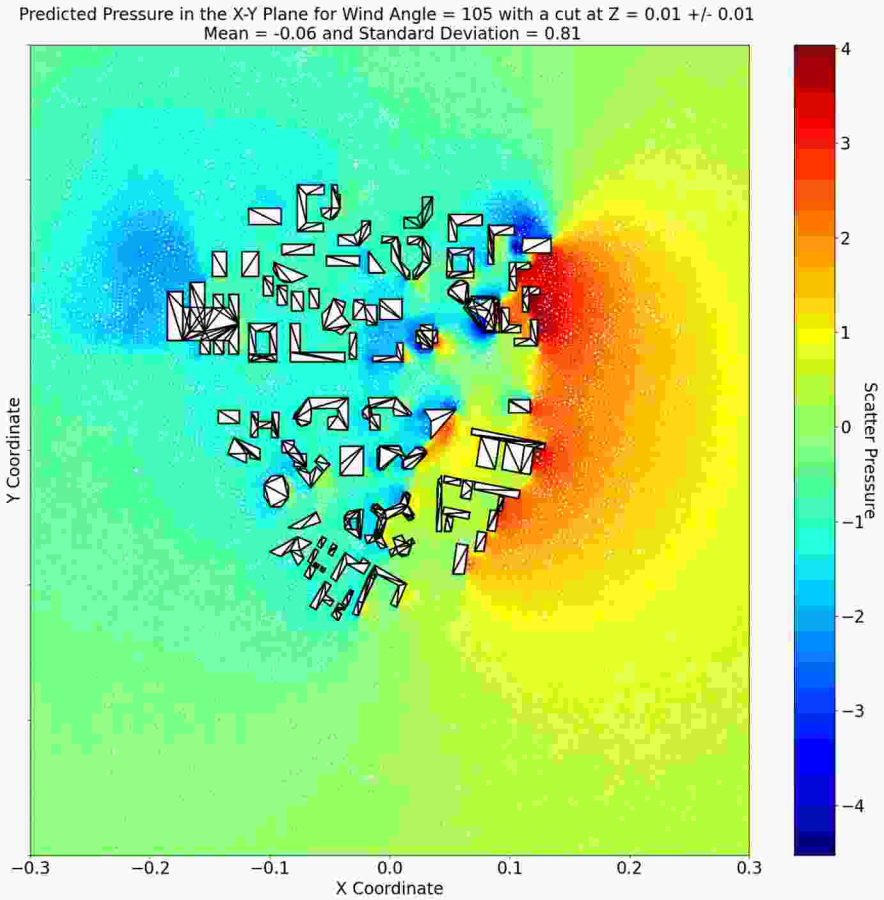
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



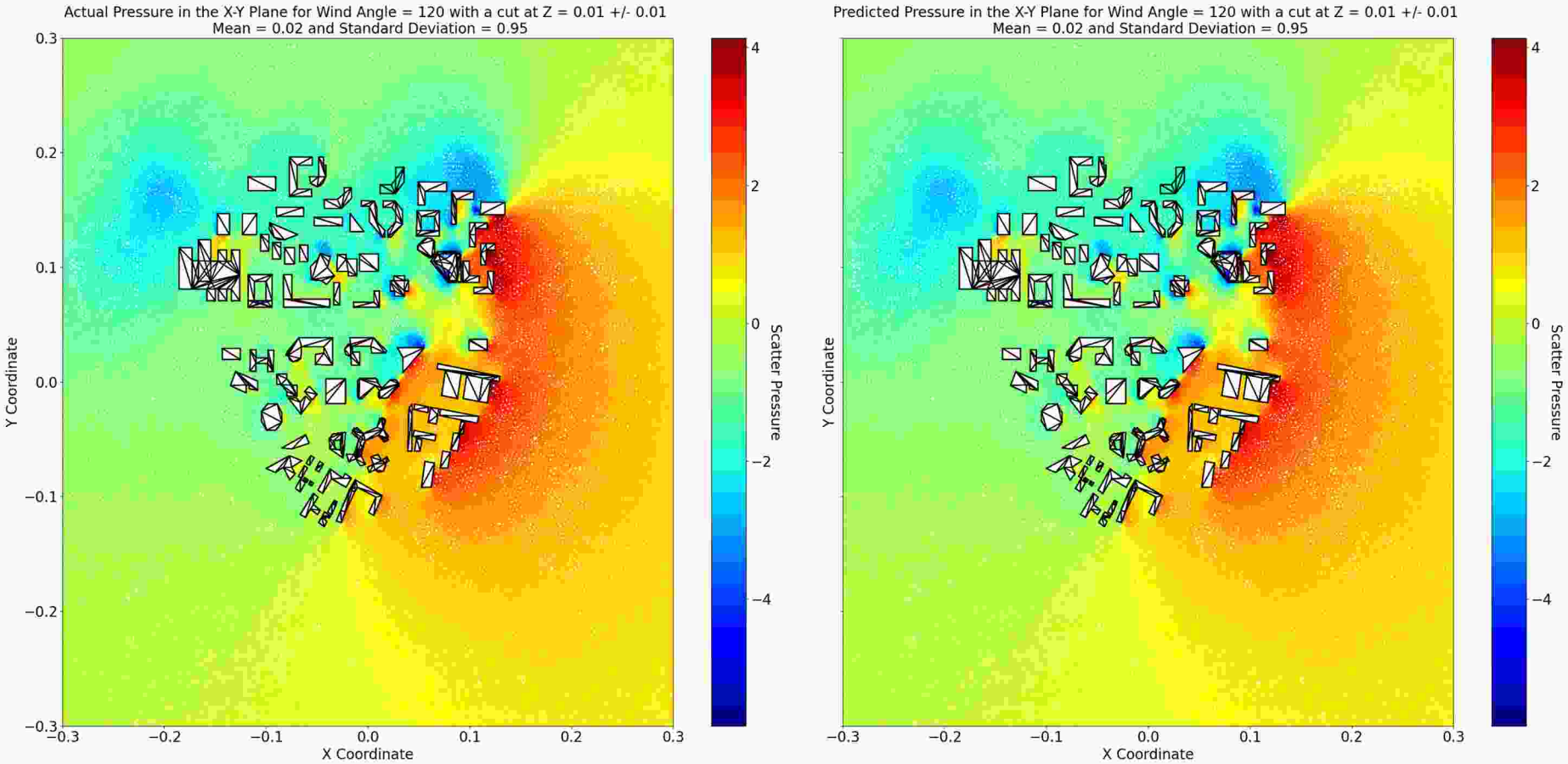


Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

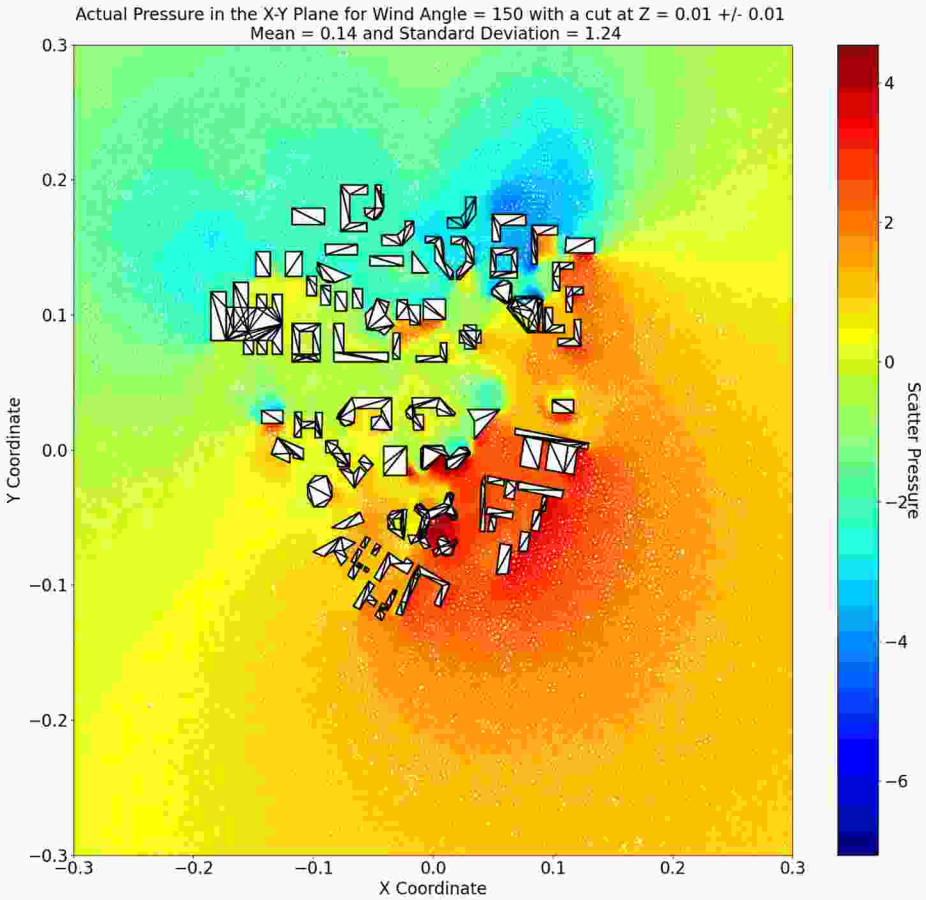


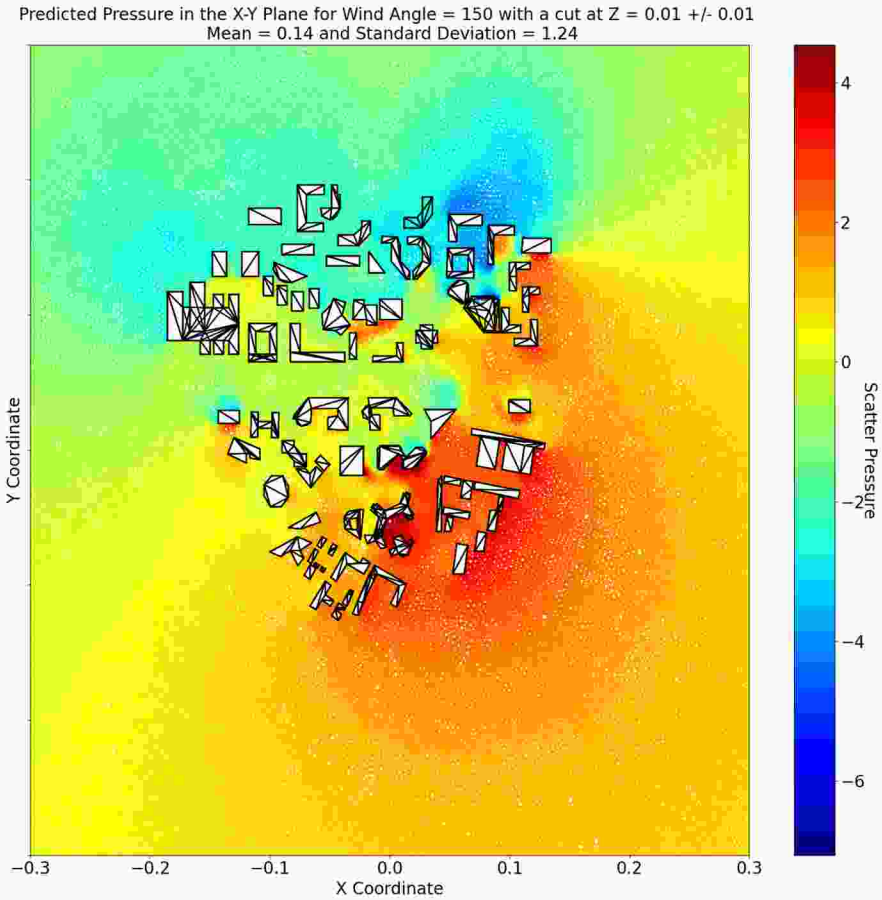


Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

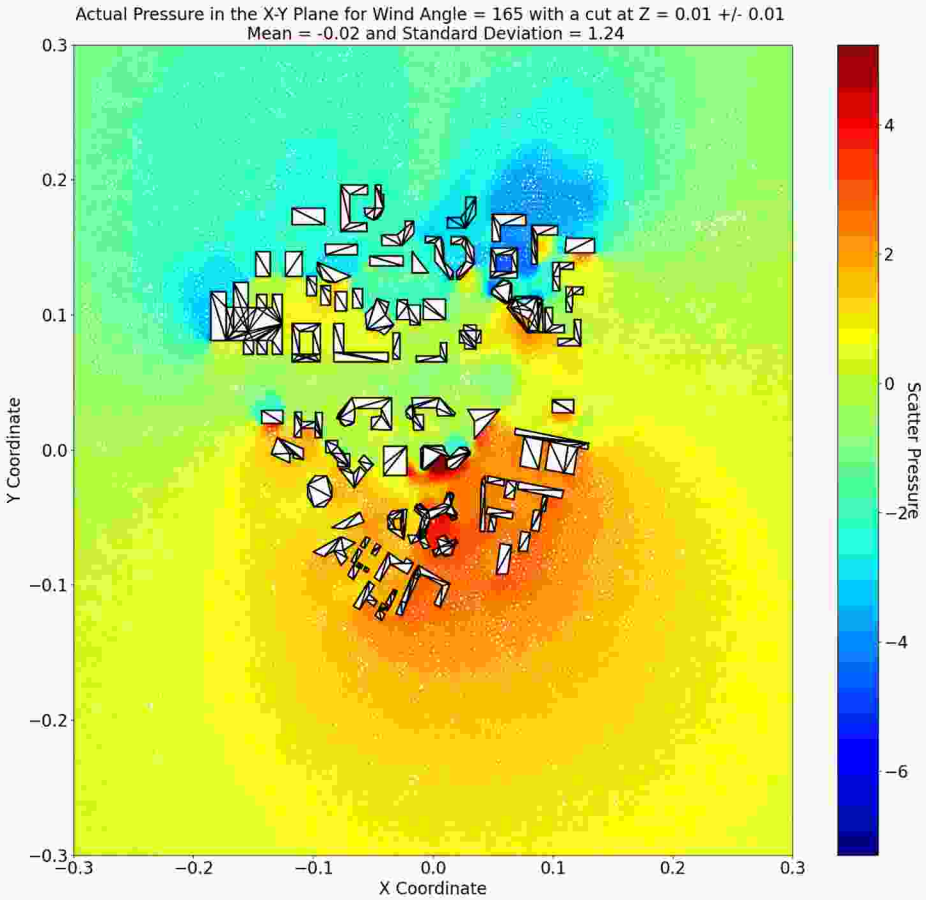


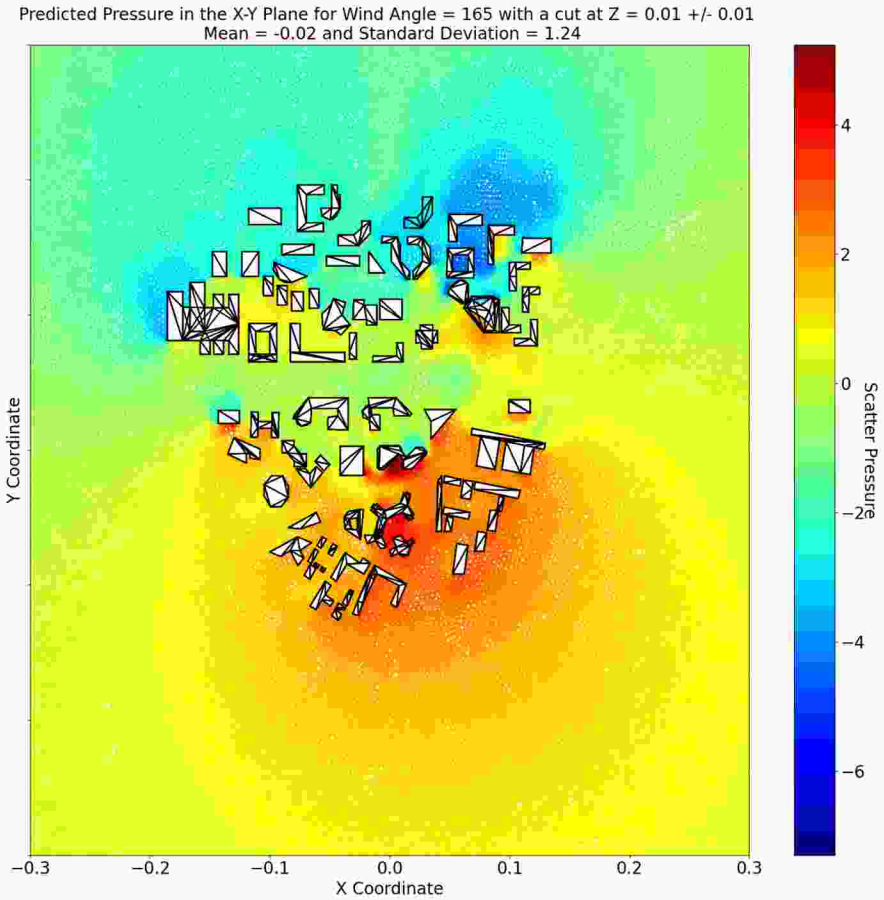
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



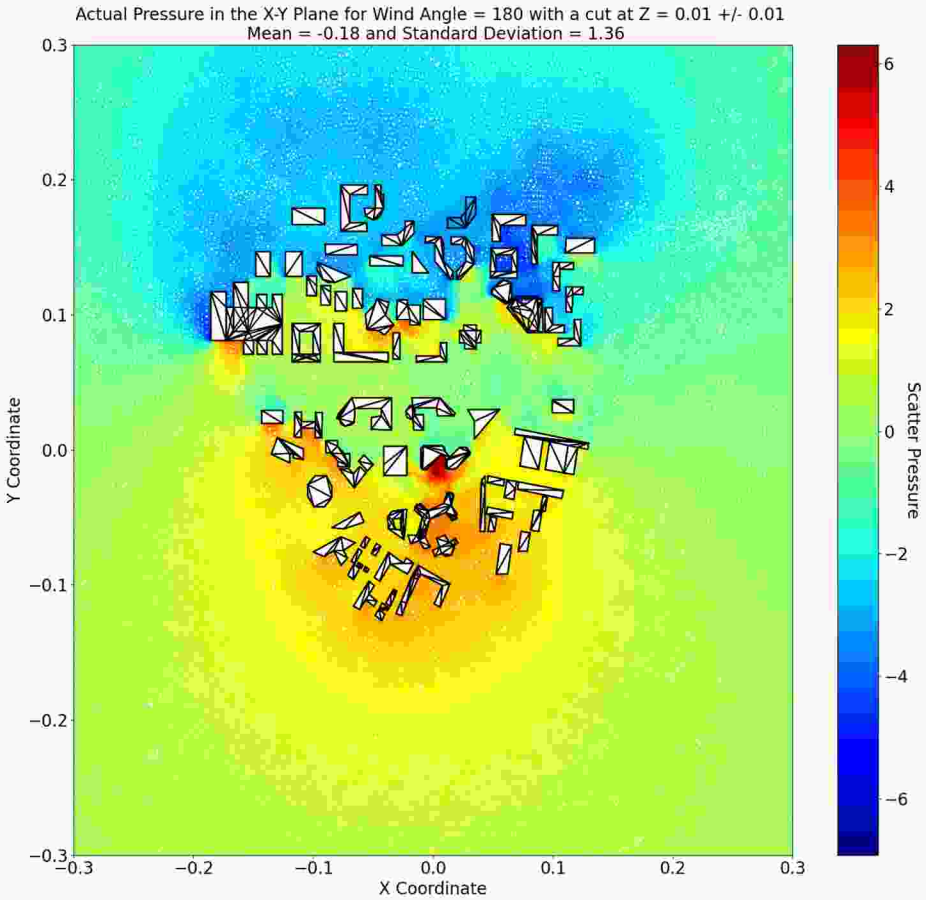


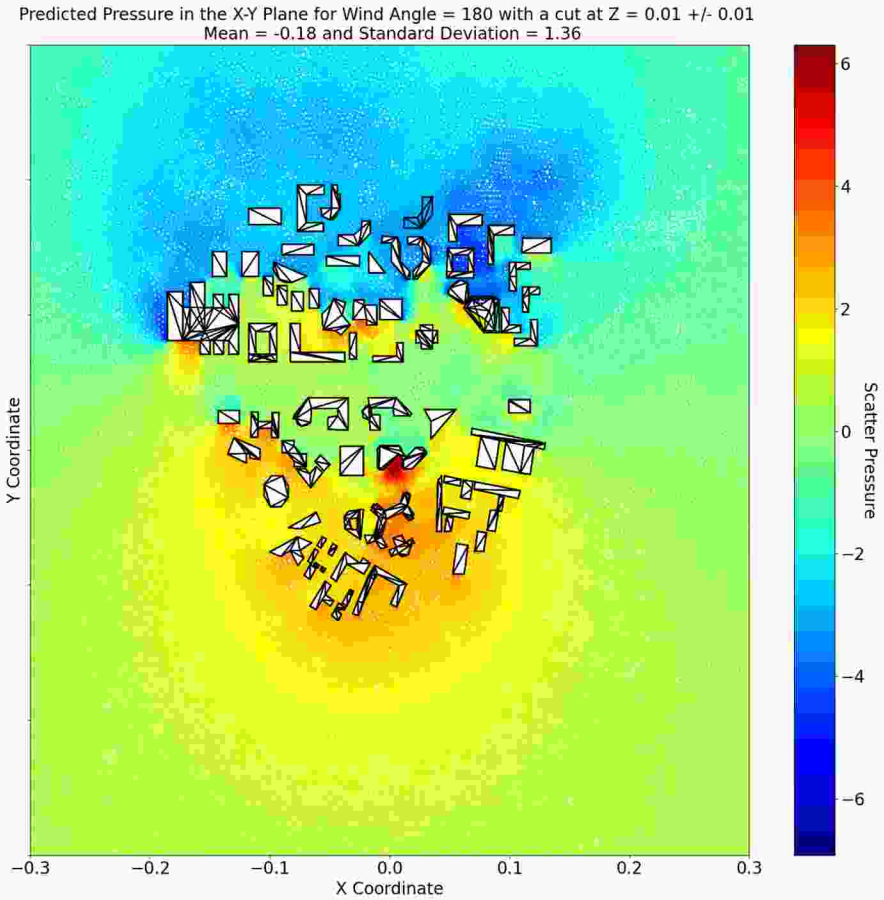
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

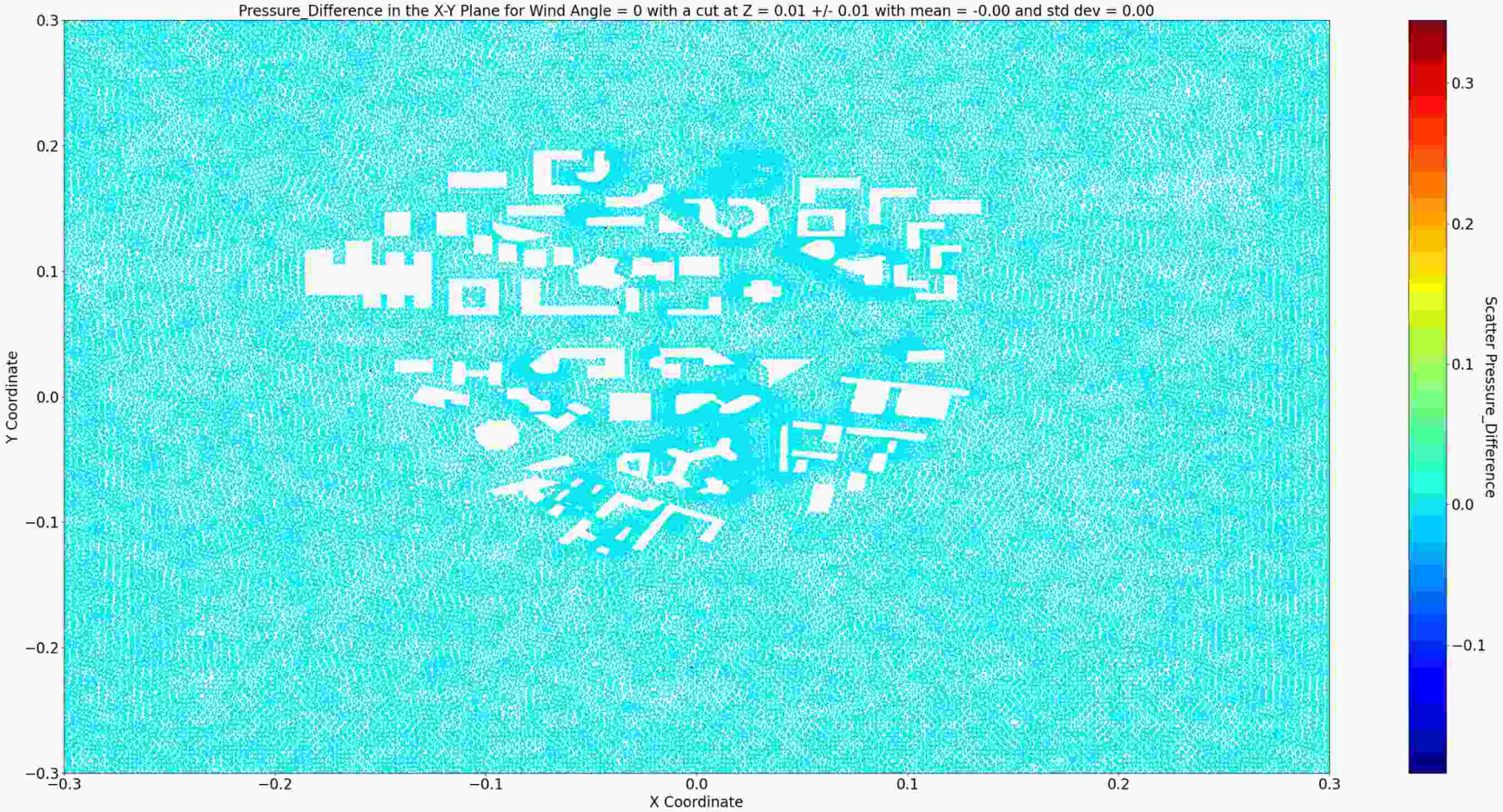


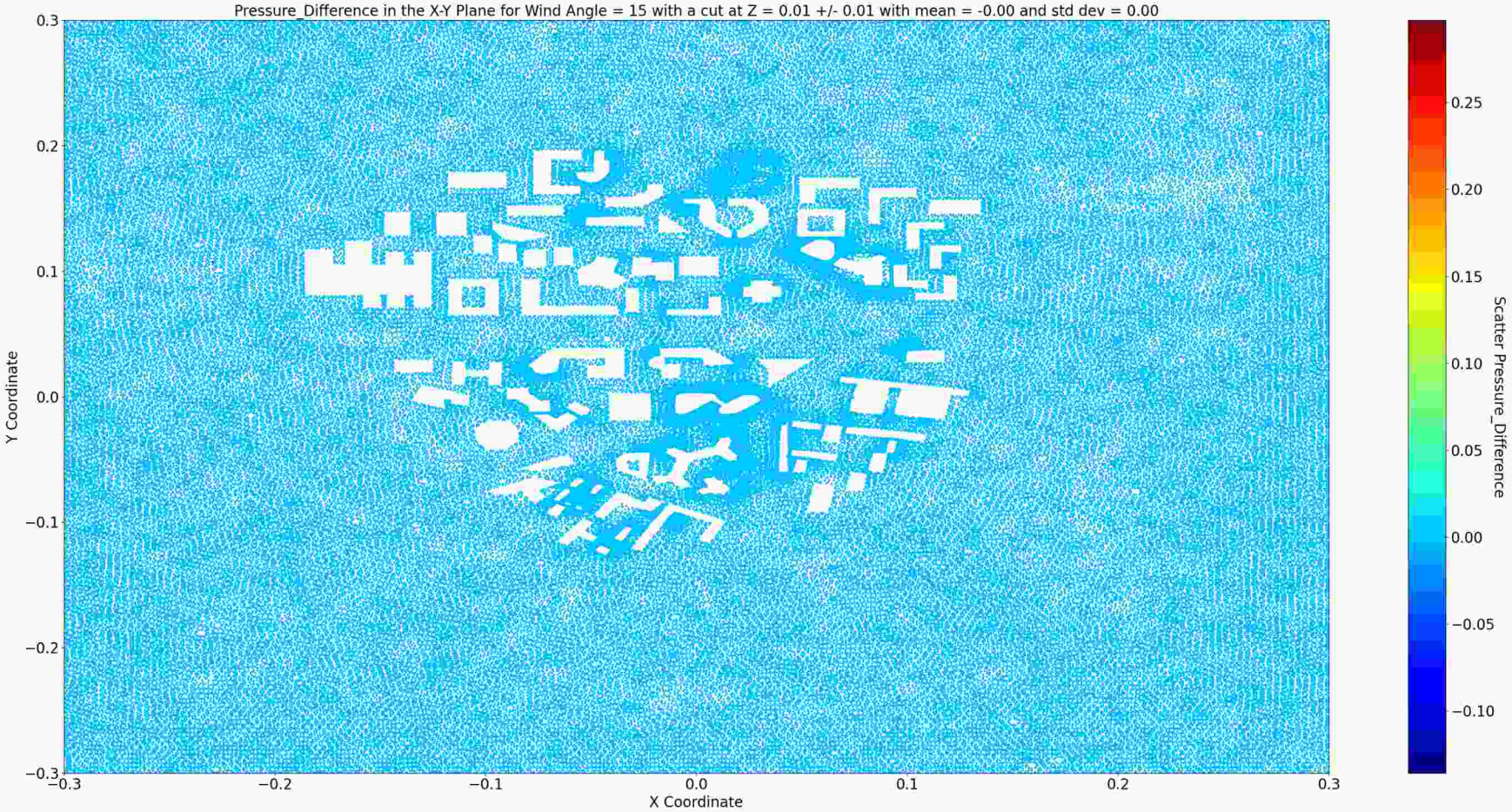


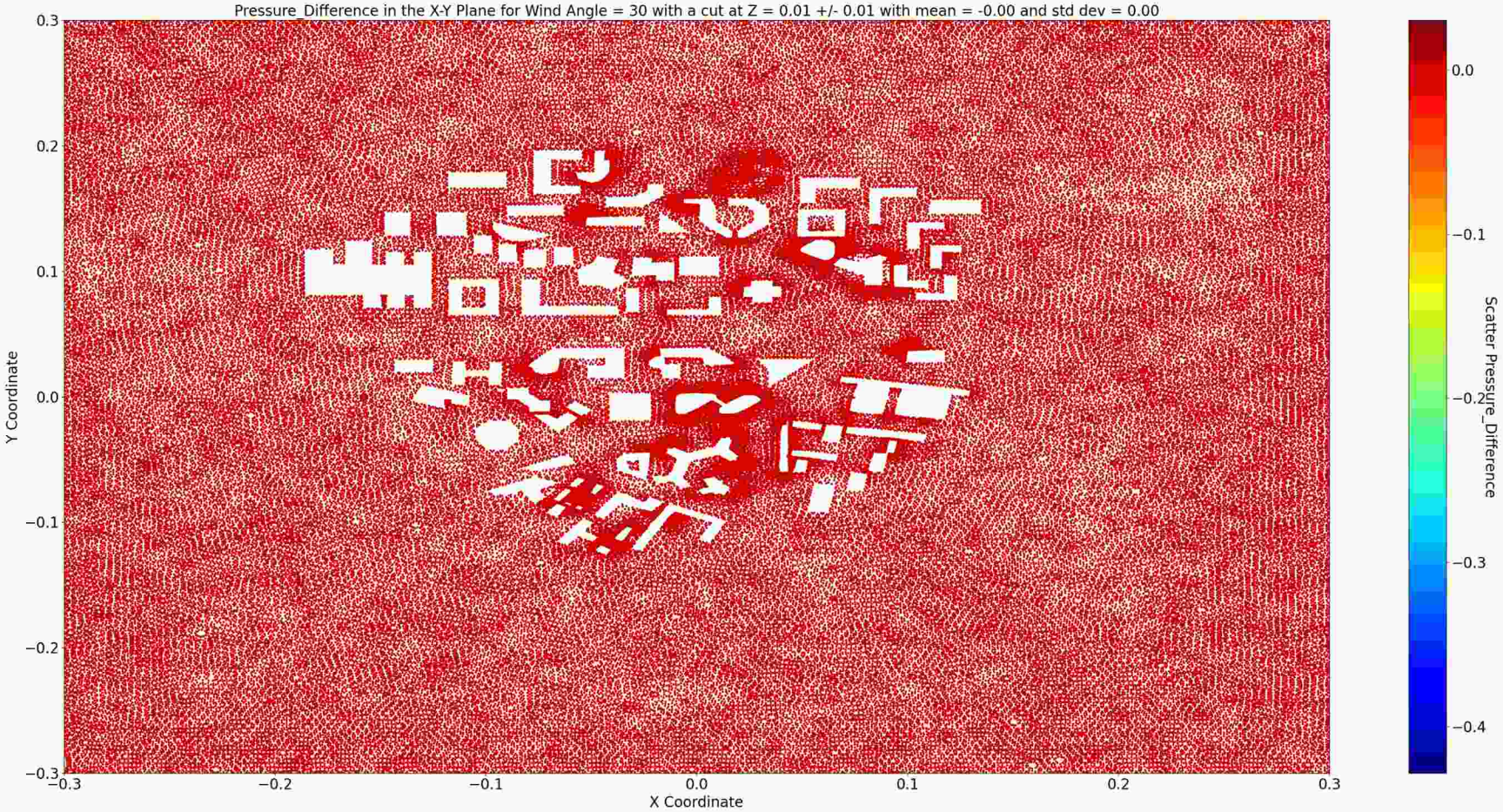
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

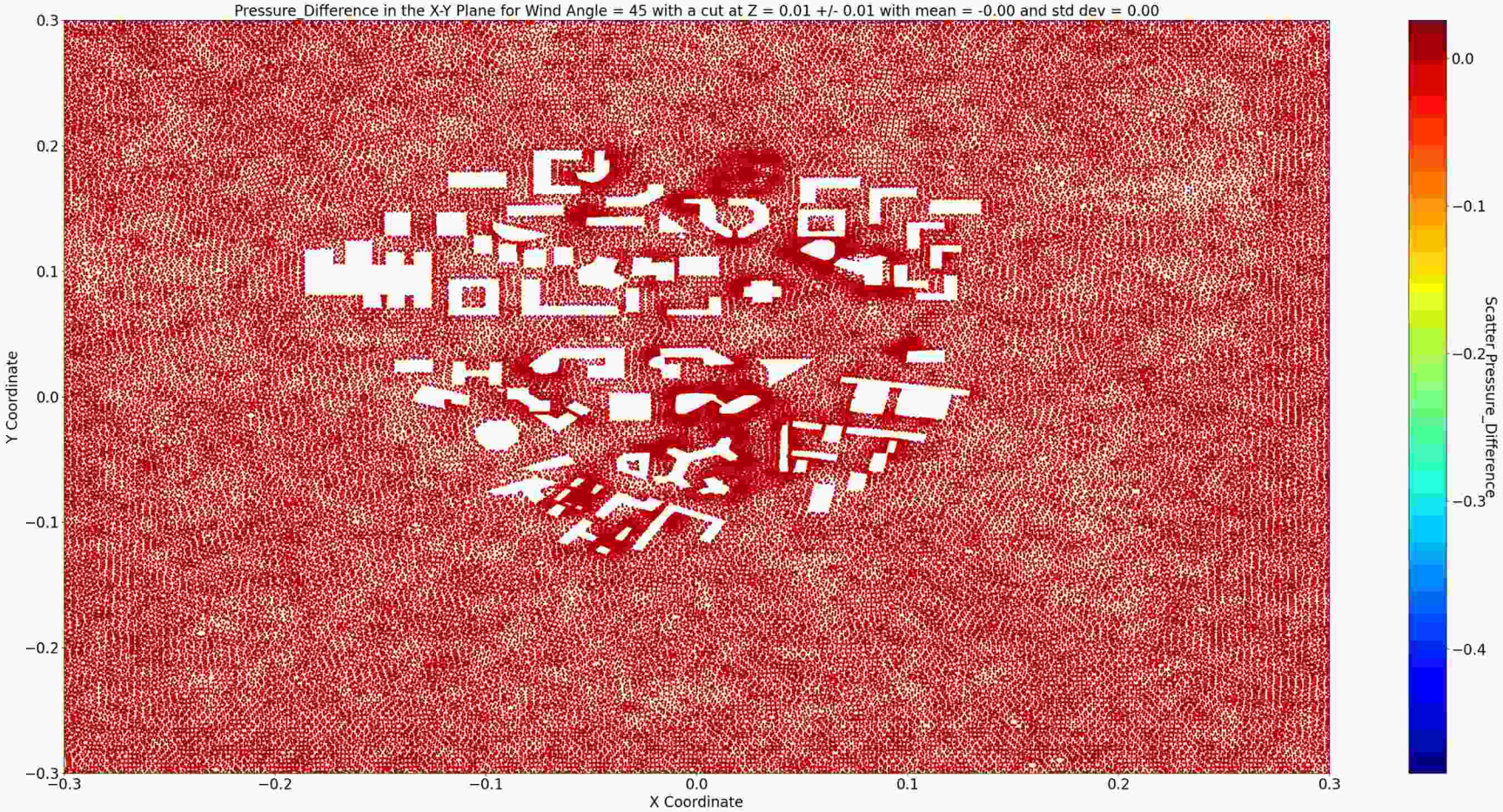


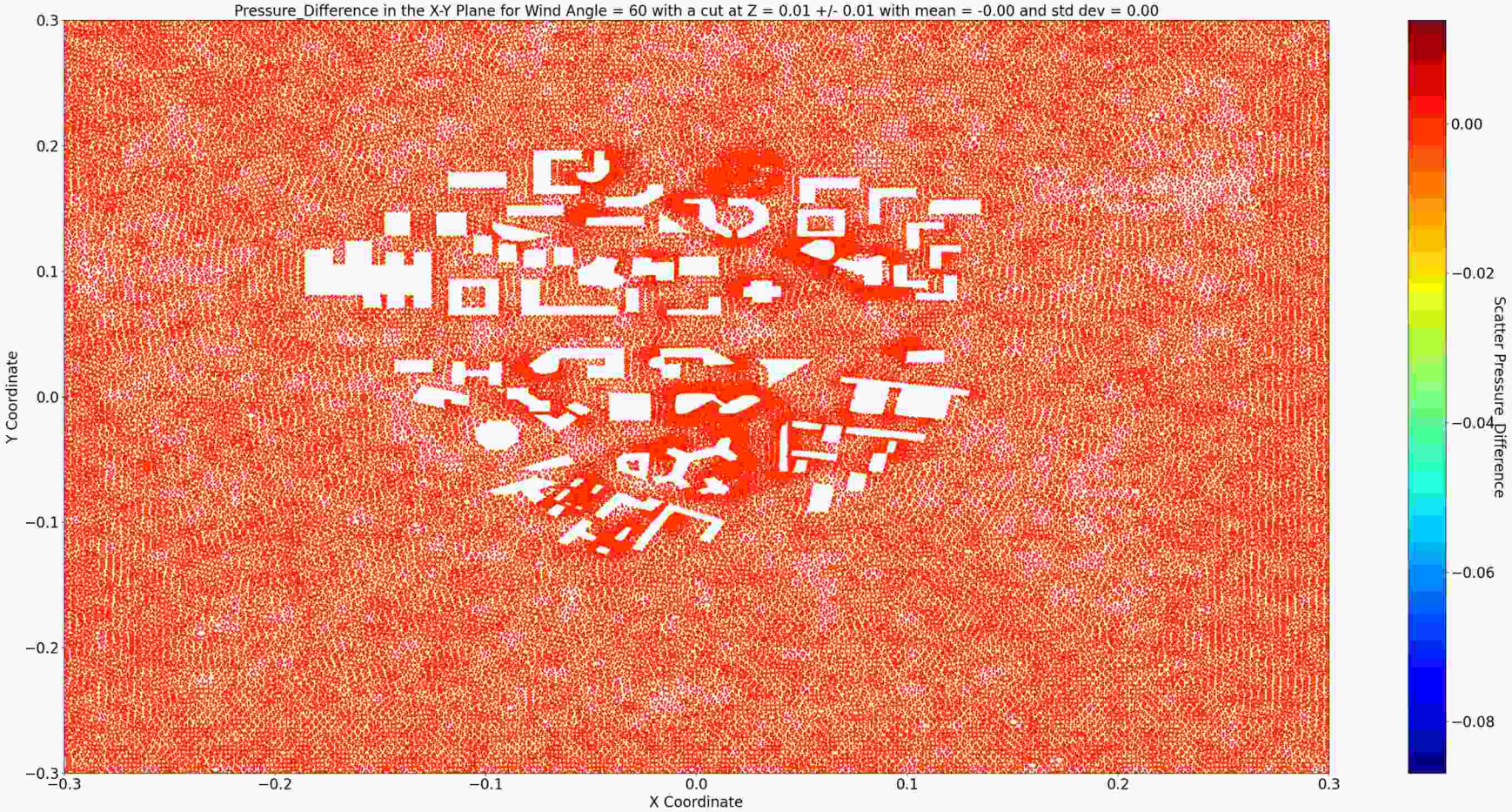


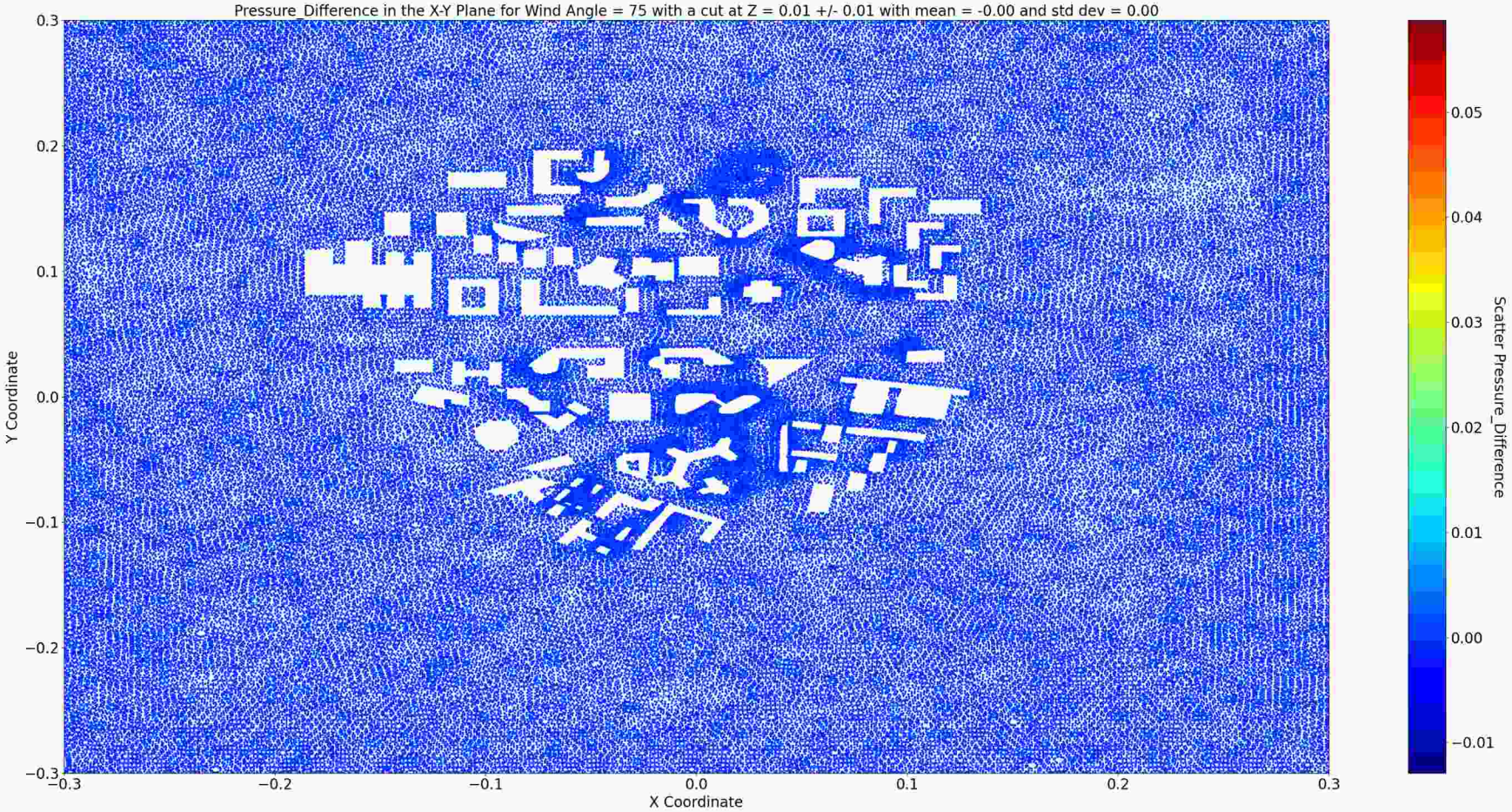

Pressure_Difference in the X-Y Plane for Wind Angle = 0 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Pressure_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3

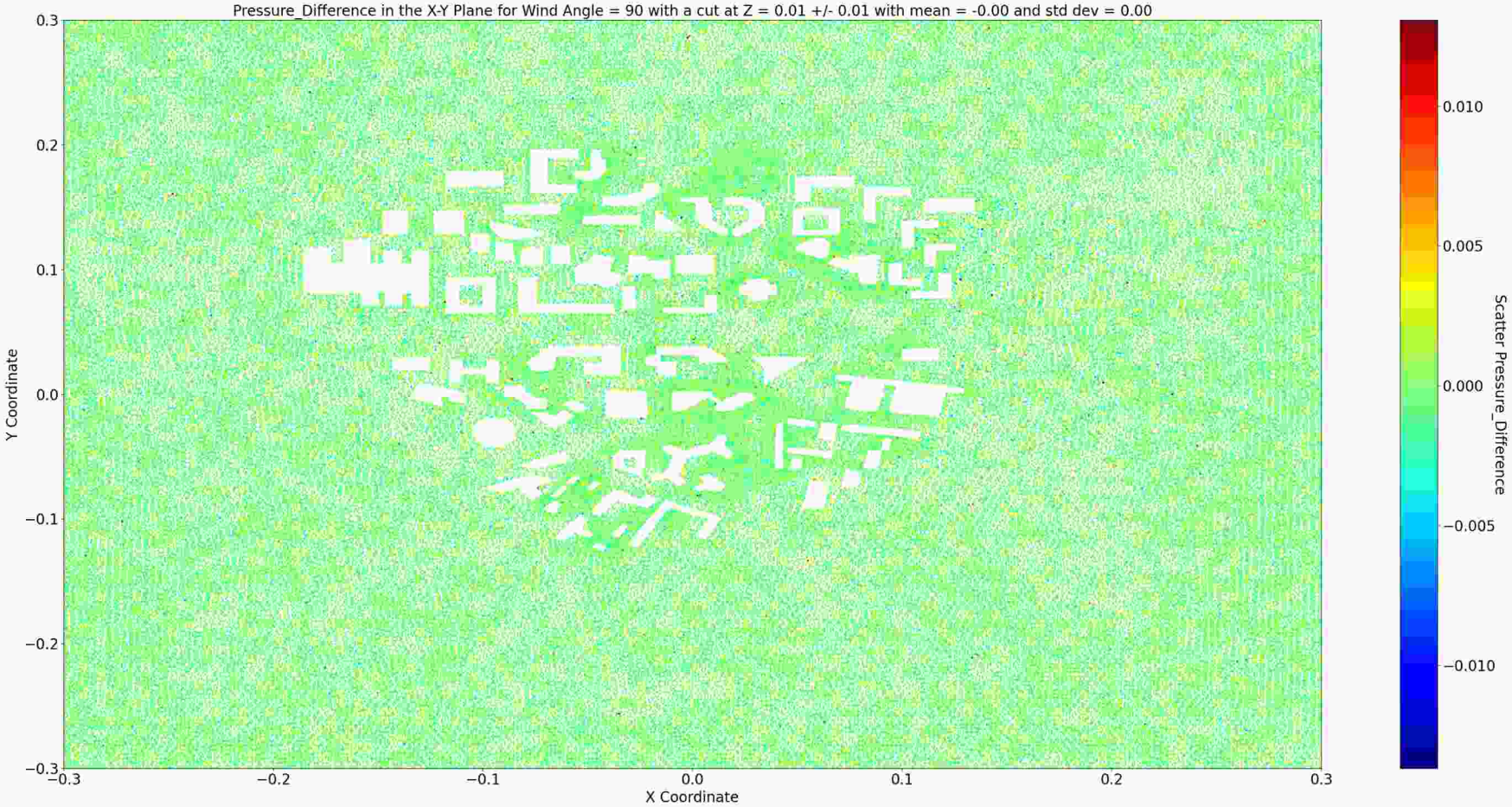

Pressure_Difference in the X-Y Plane for Wind Angle = 15 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Pressure_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.25
0.20
0.15
0.10
0.05
0.00
−0.05
−0.10

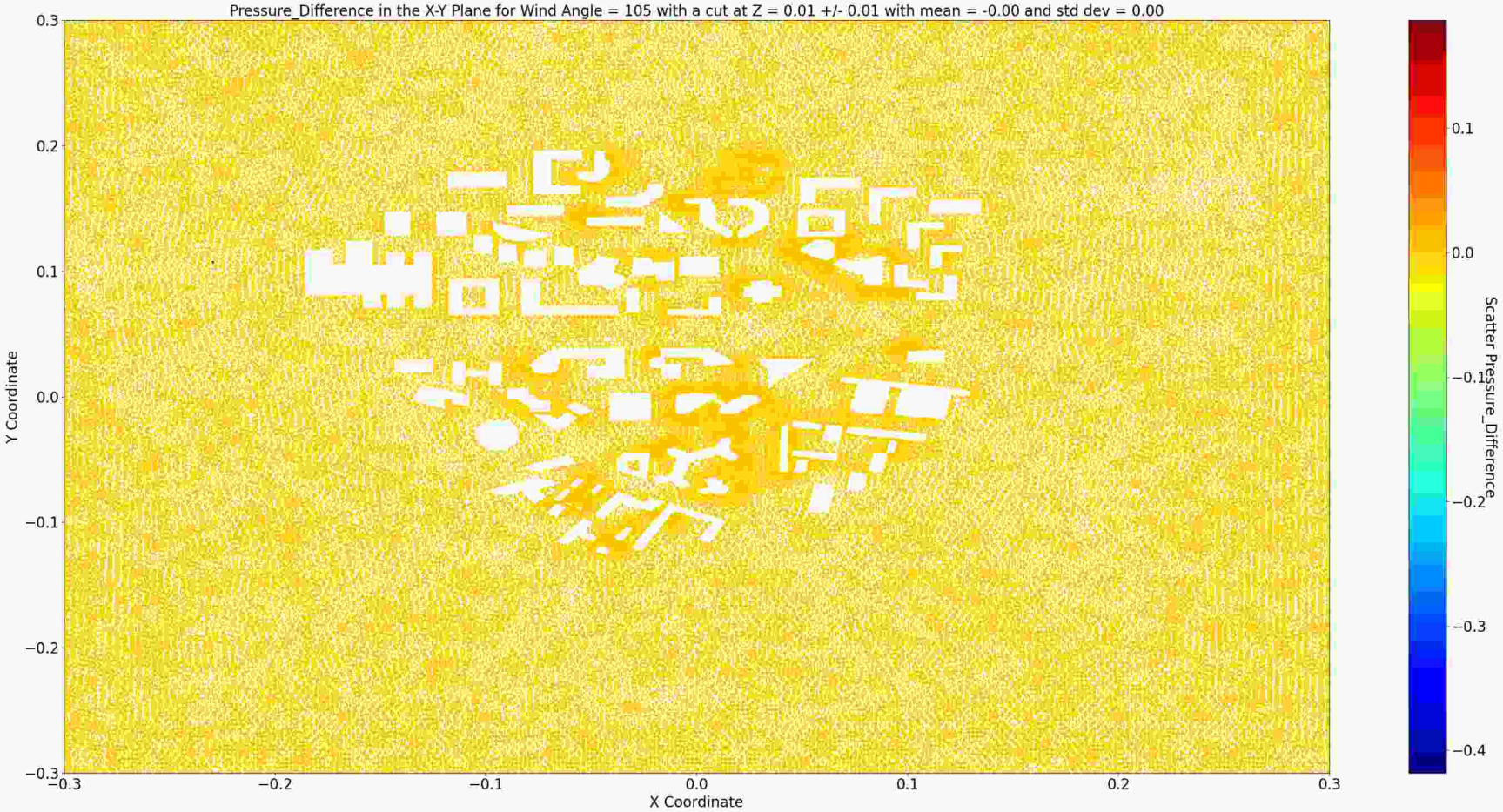

Pressure_Difference in the X-Y Plane for Wind Angle = 30 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Pressure_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4

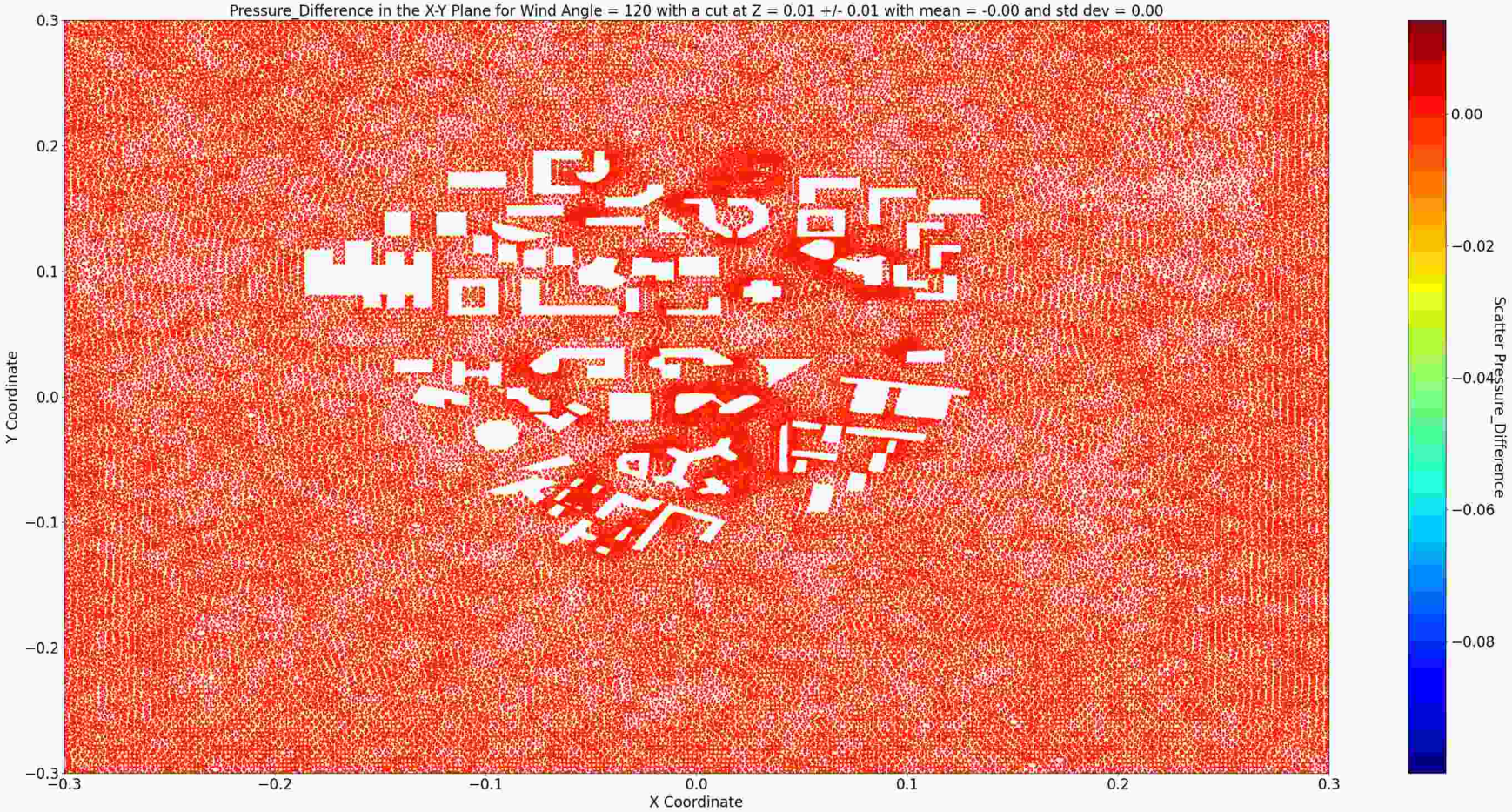

Pressure_Difference in the X-Y Plane for Wind Angle = 45 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter_Pressure_Difference
0.0
−0.1
−0.2
−0.3
−0.4

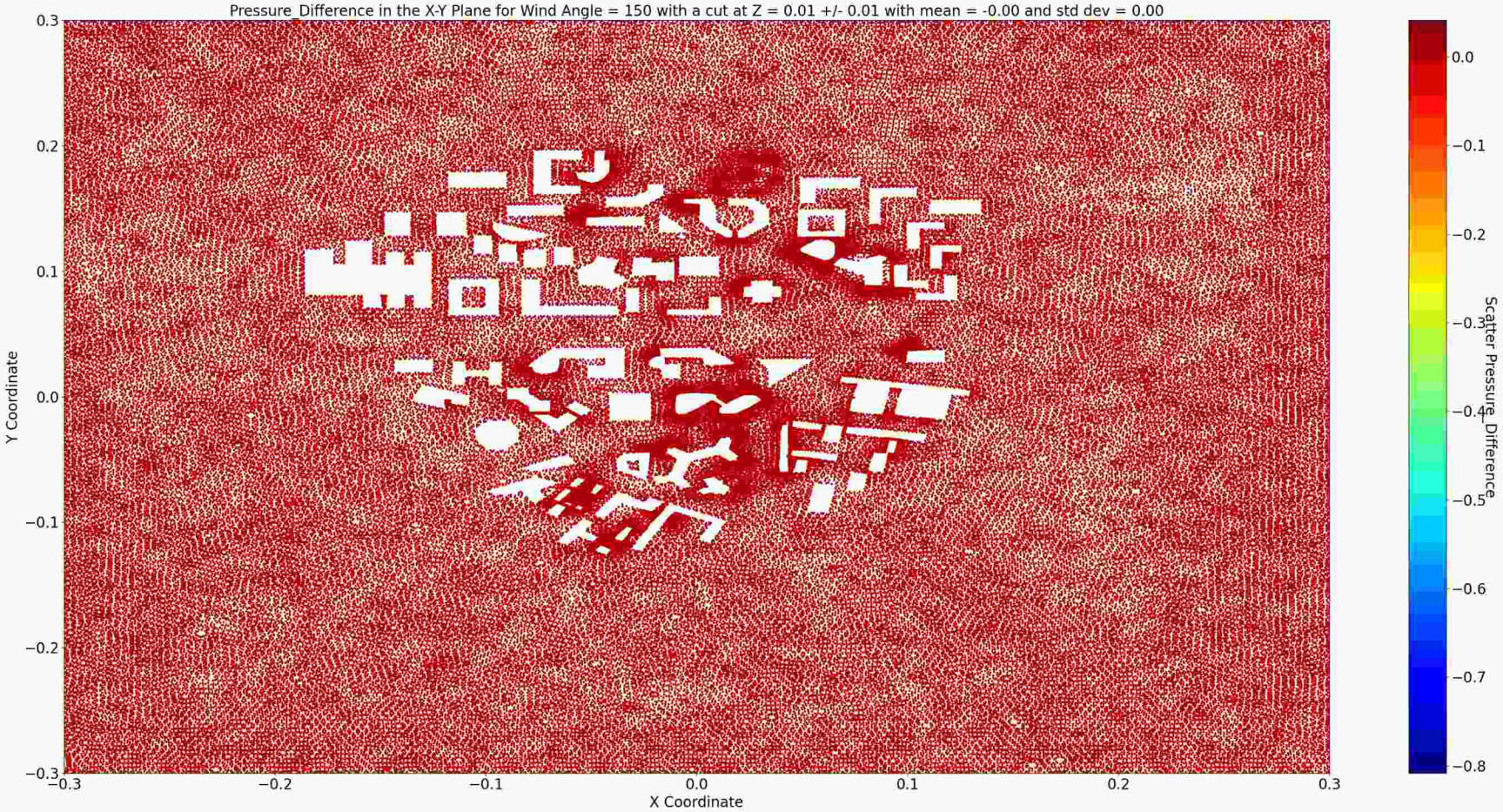

Pressure_Difference in the X-Y Plane for Wind Angle = 60 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Pressure_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.00
−0.02
−0.04
−0.06
−0.08

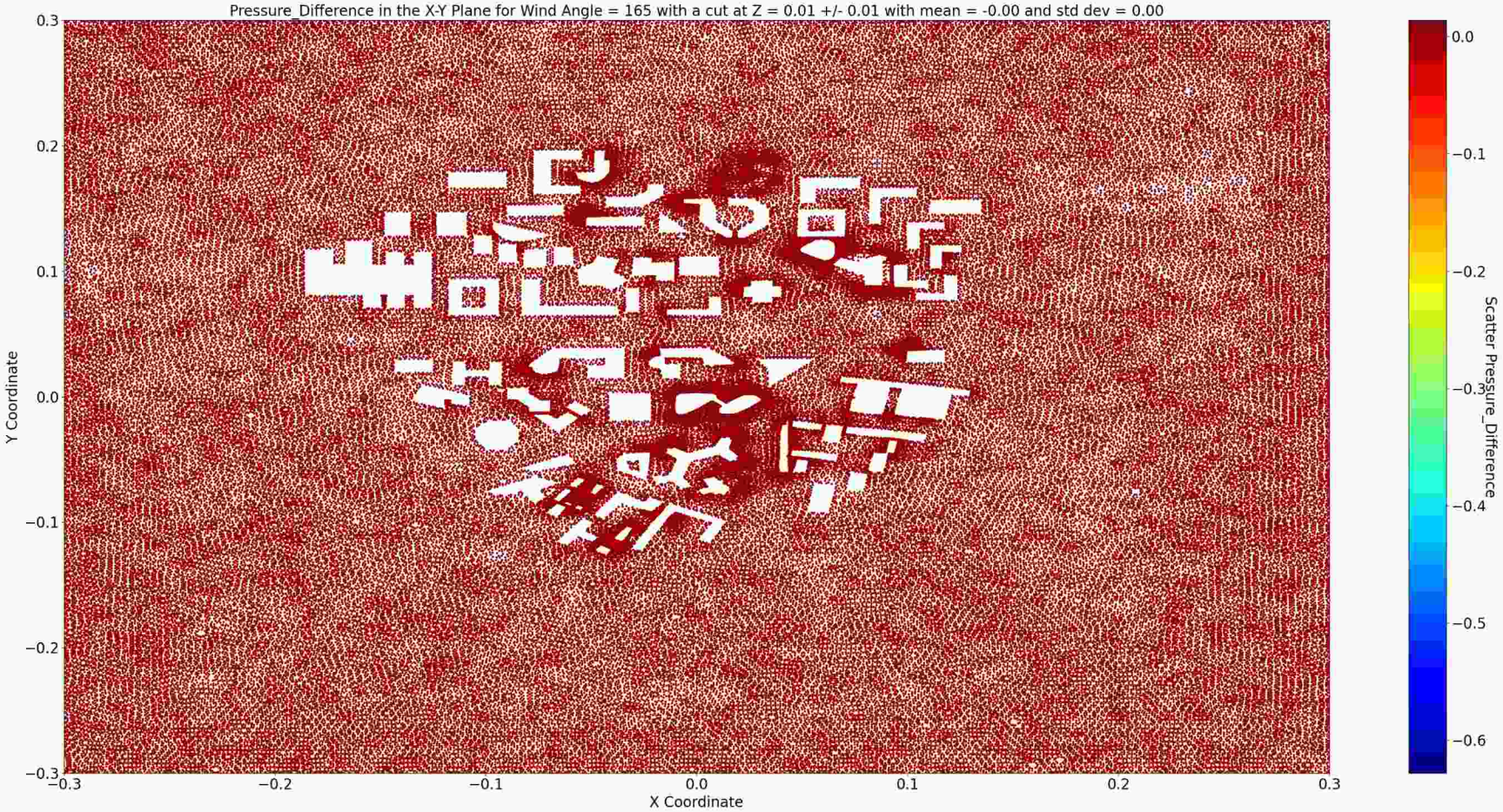

Pressure_Difference in the X-Y Plane for Wind Angle = 75 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Pressure_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.05
0.04
0.03
0.02
0.01
0.00
−0.01

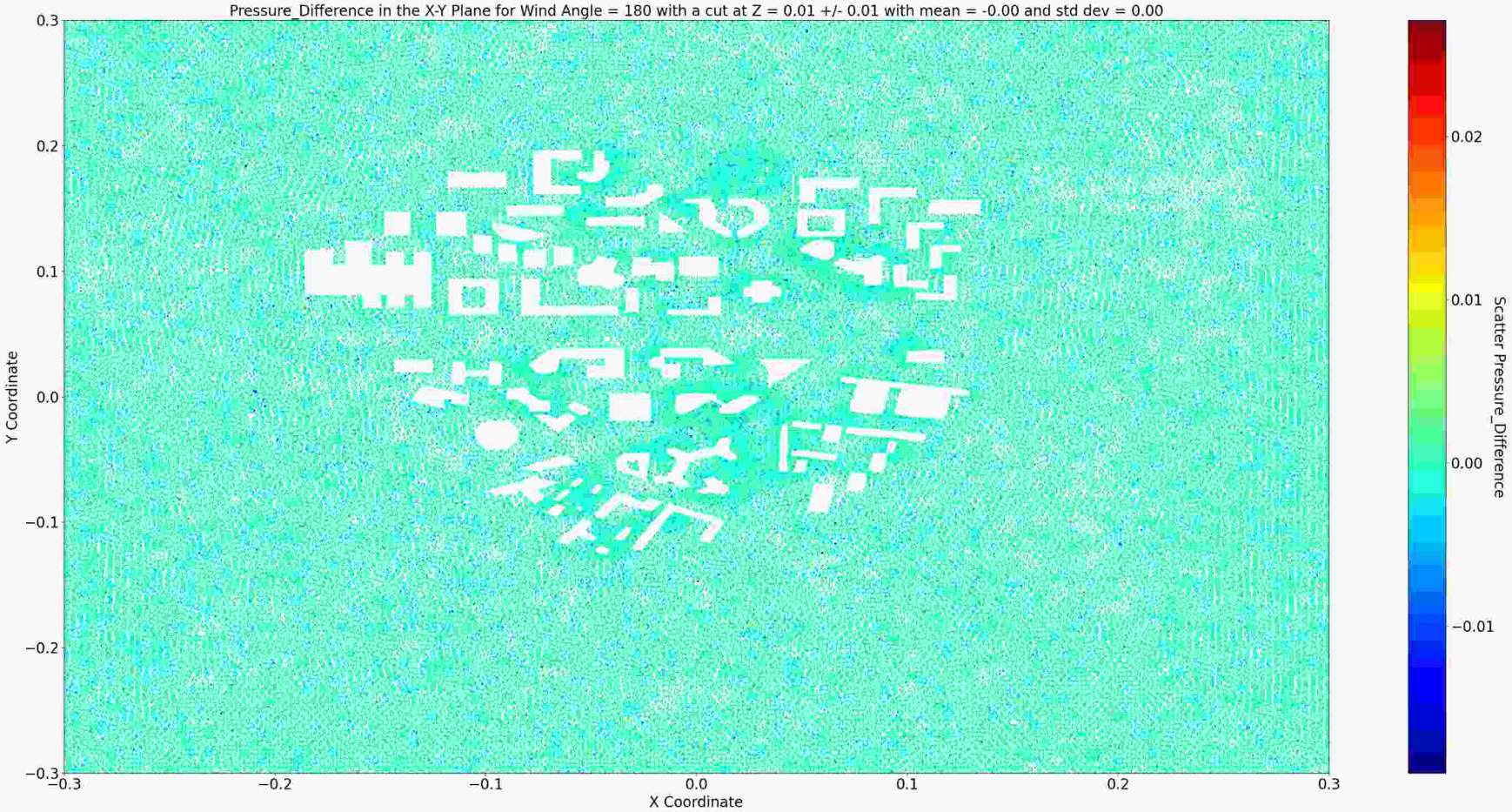

Pressure_Difference in the X-Y Plane for Wind Angle = 90 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Pressure_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.010
0.005
0.000
−0.005
−0.010


Pressure_Difference in the X-Y Plane for Wind Angle = 105 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Pressure_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4

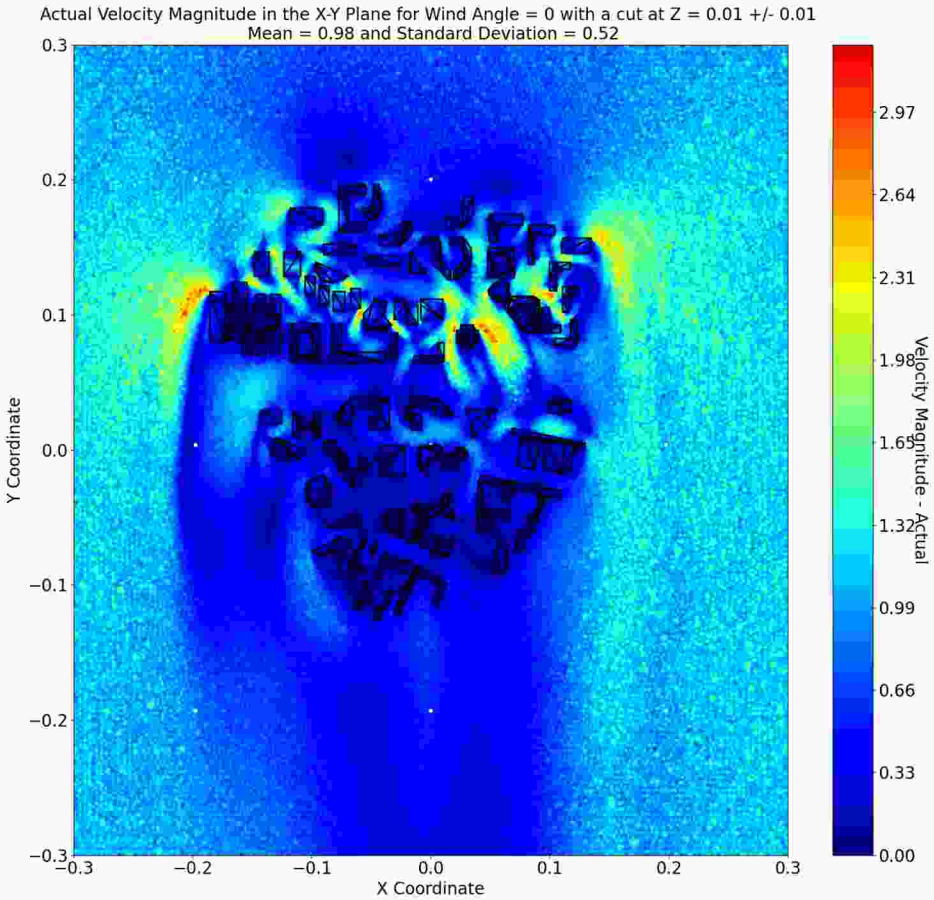

Pressure_Difference in the X-Y Plane for Wind Angle = 120 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
Scatter Pressure_Difference
0.00
−0.02
−0.04
−0.06
−0.08

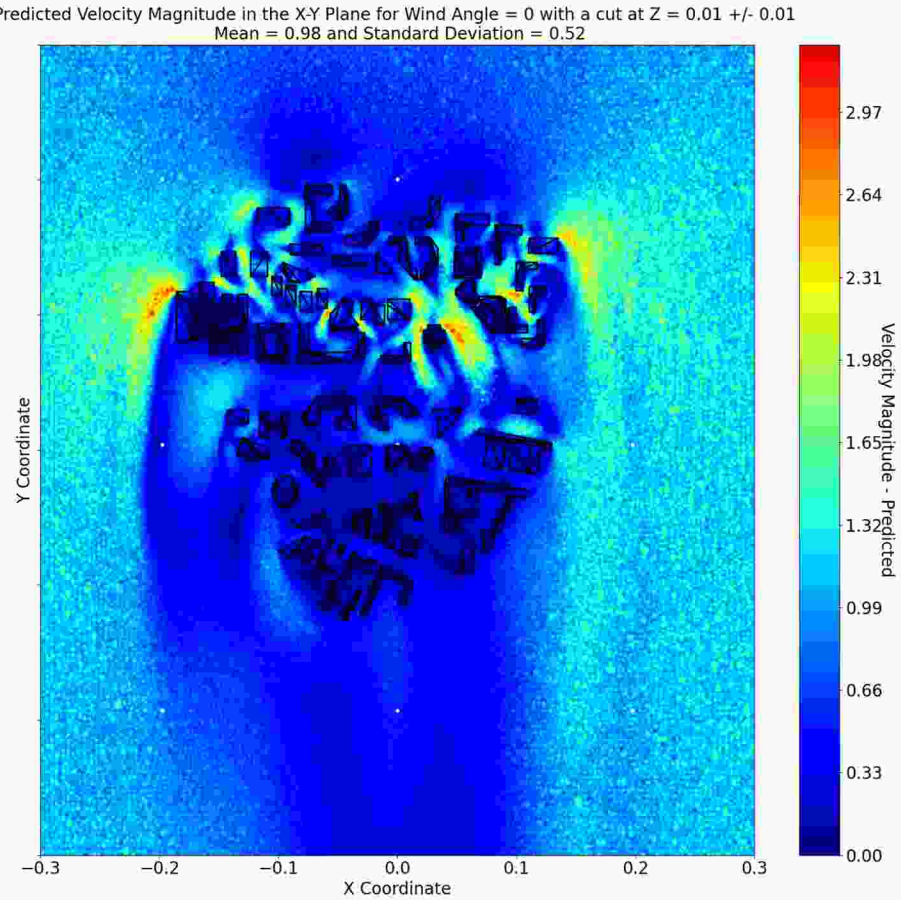

Pressure_Difference in the X-Y Plane for Wind Angle = 150 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Pressure_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8


Pressure_Difference in the X-Y Plane for Wind Angle = 165 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Pressure_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6

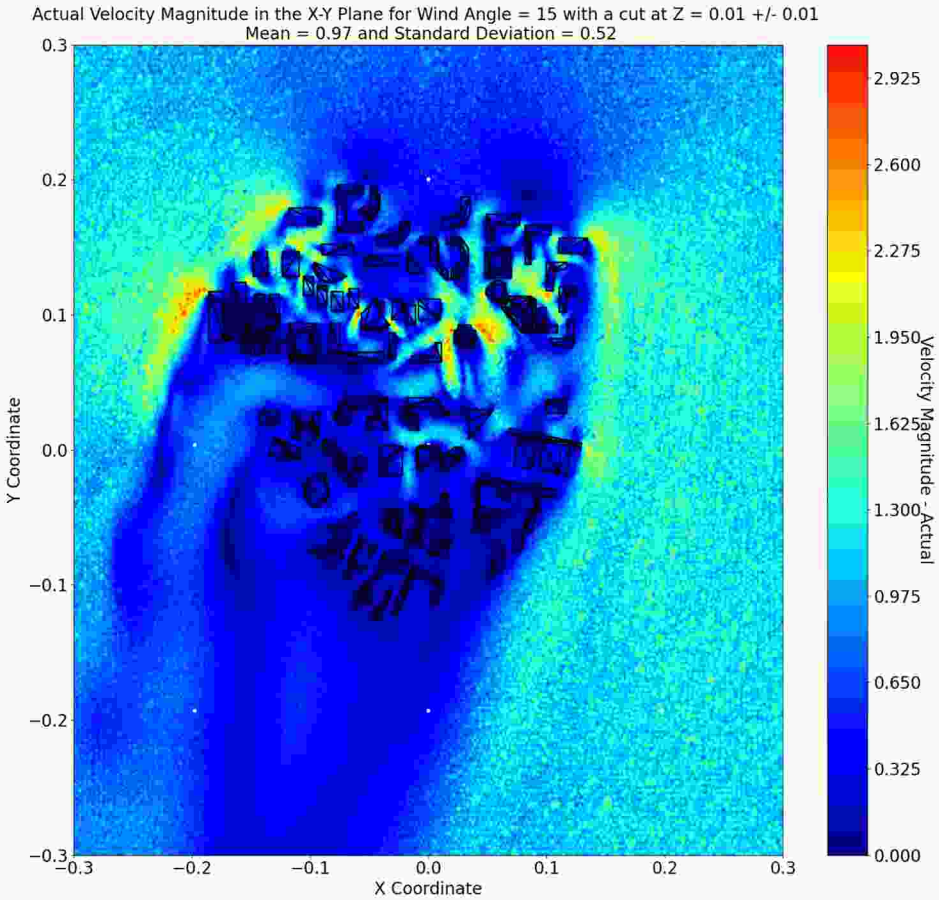

Pressure_Difference in the X-Y Plane for Wind Angle = 180 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Pressure_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.02
0.01
0.00
−0.01

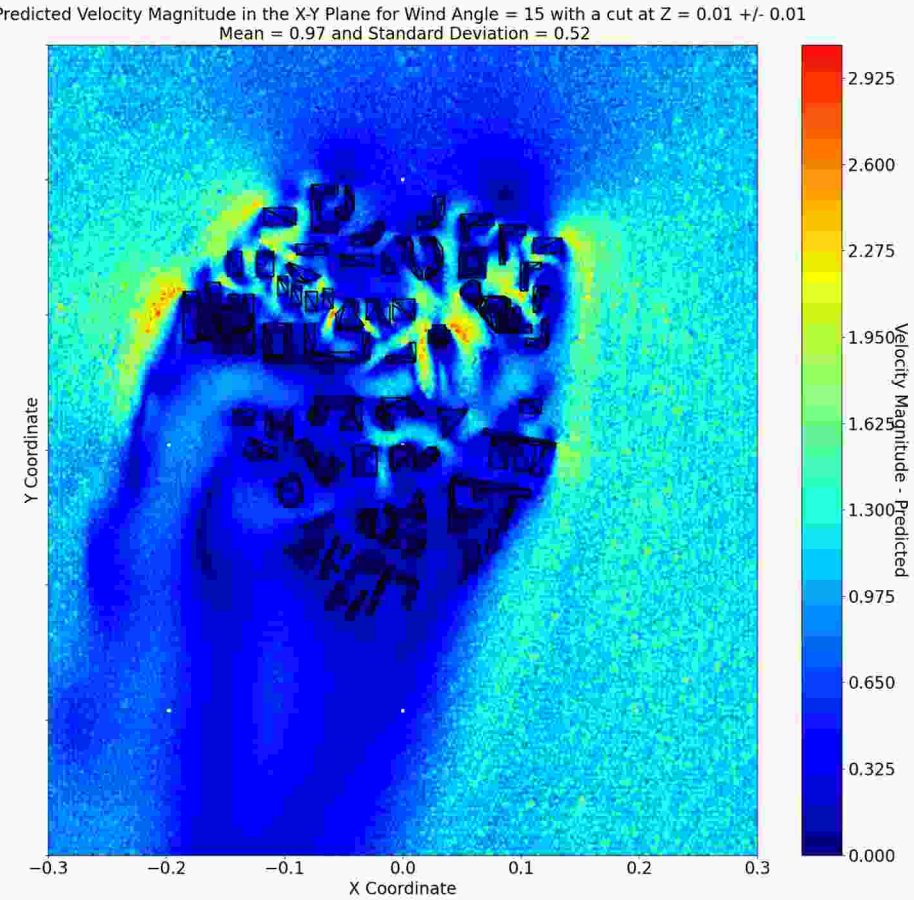
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



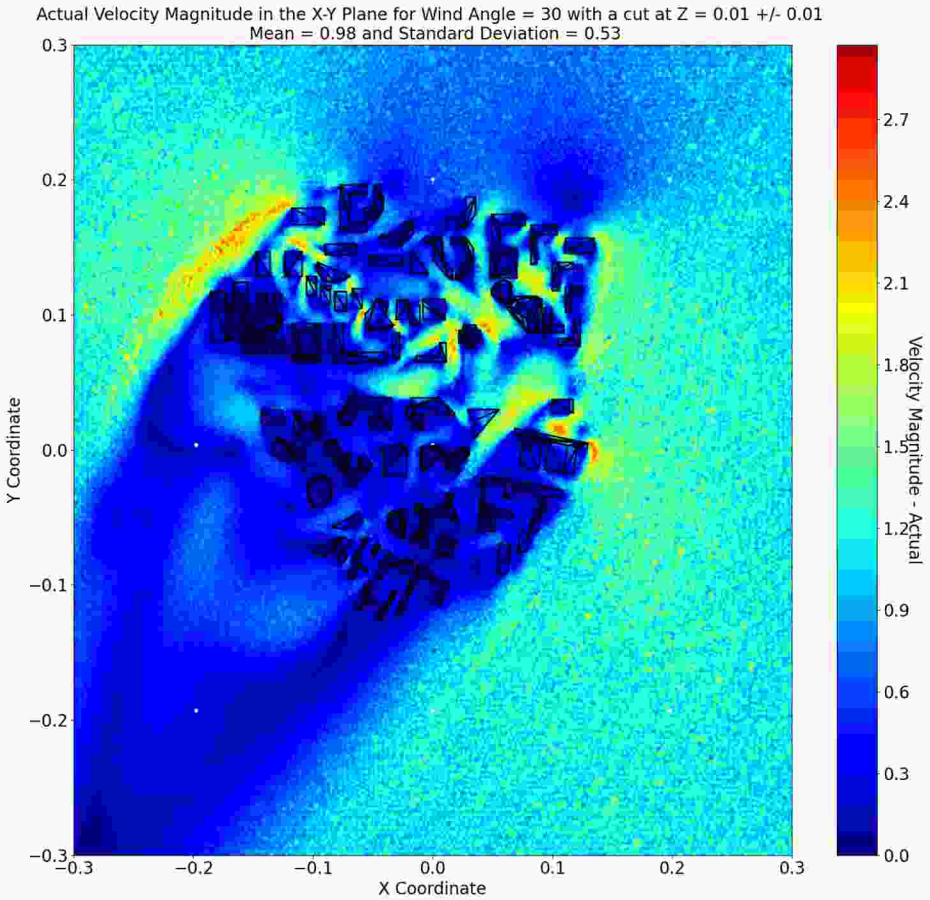


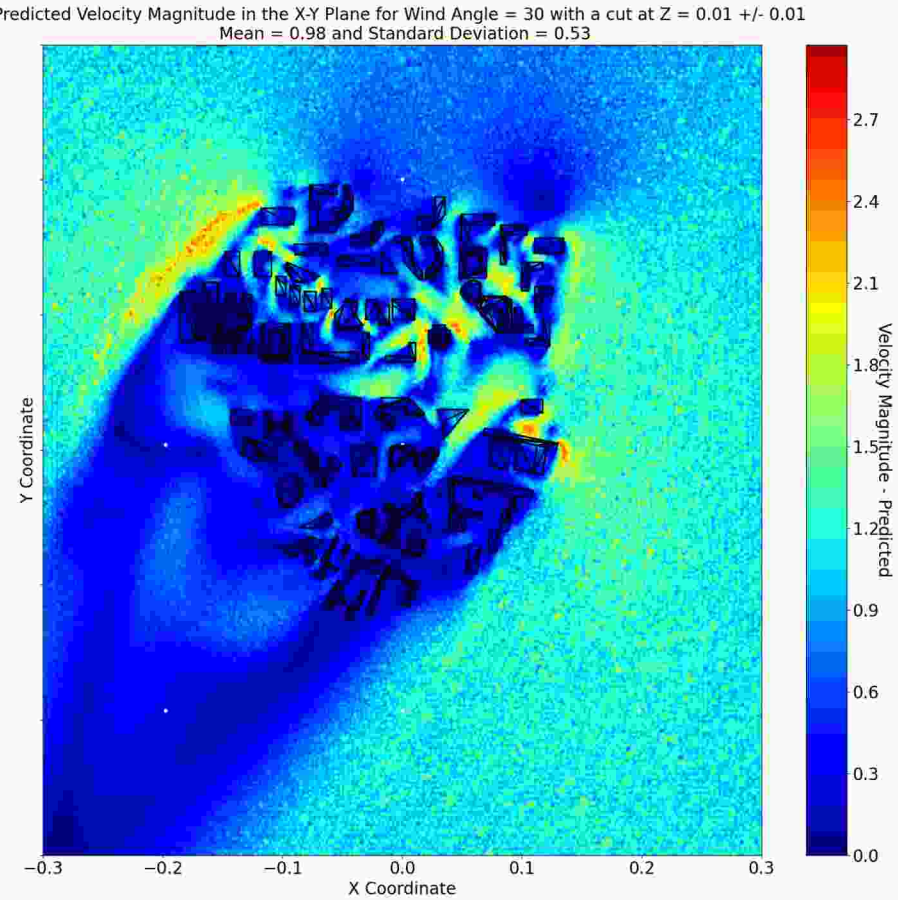
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



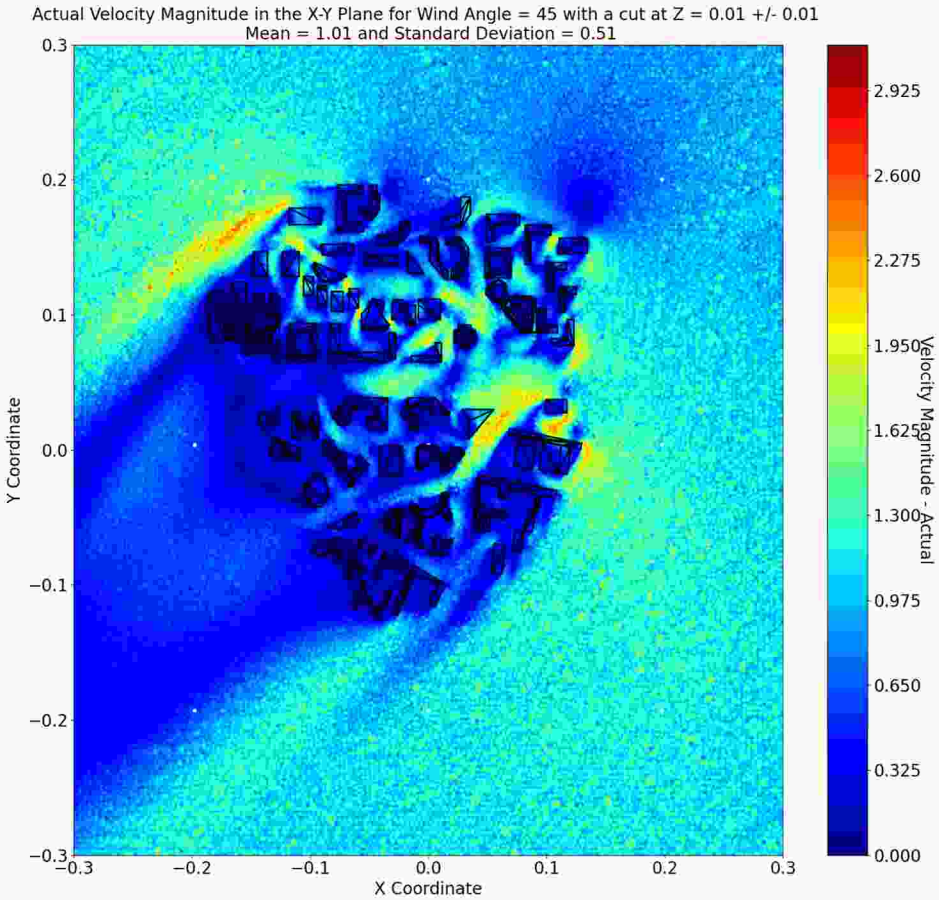


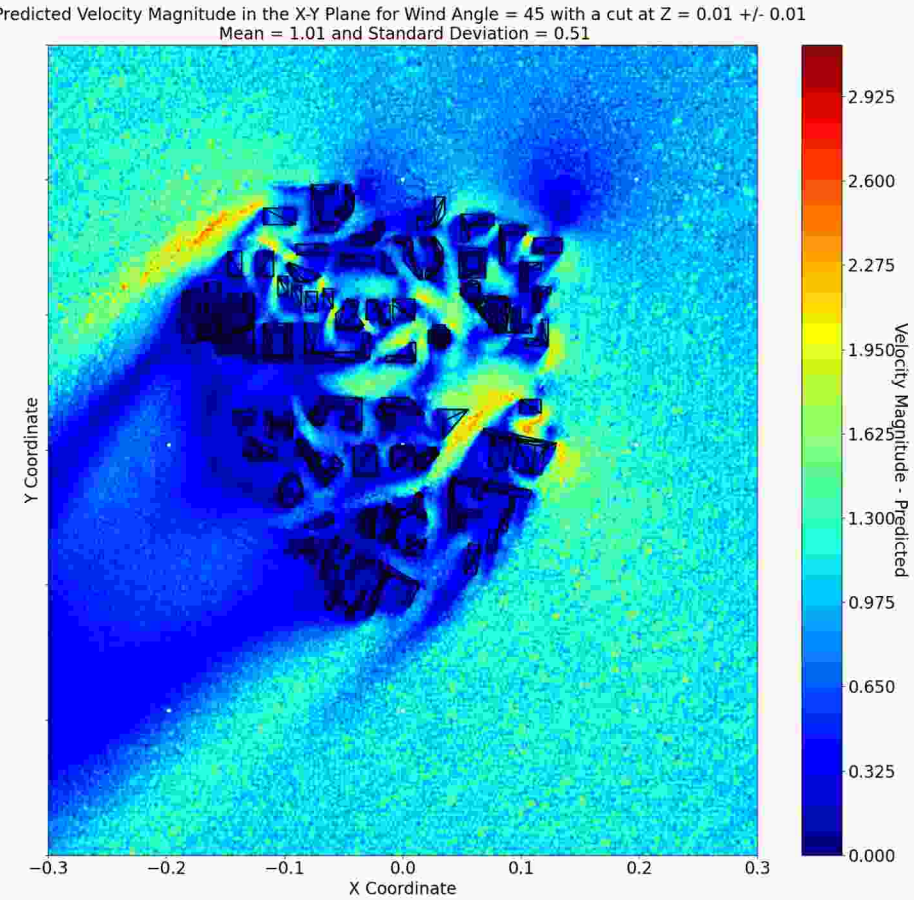
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



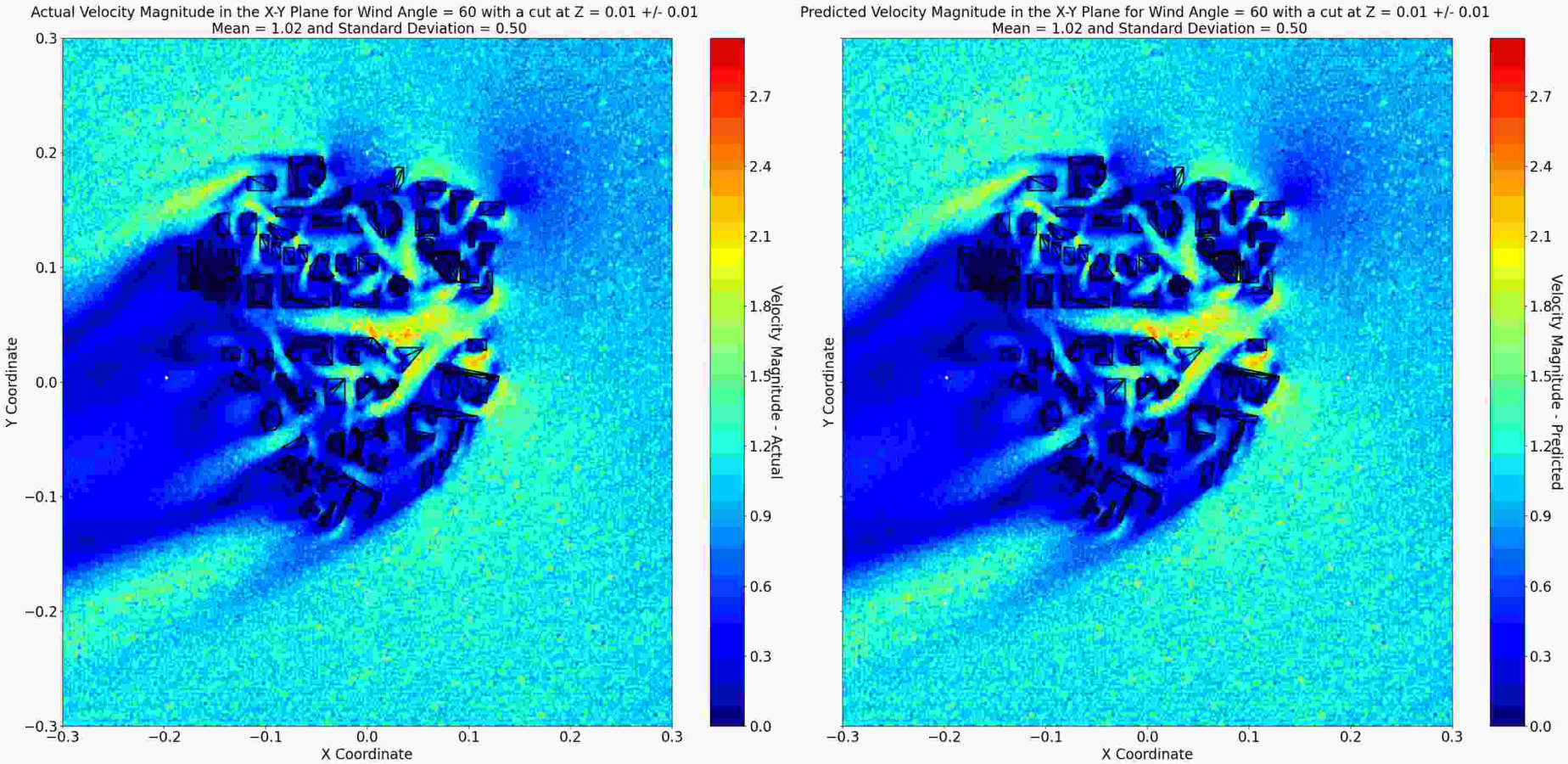


Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

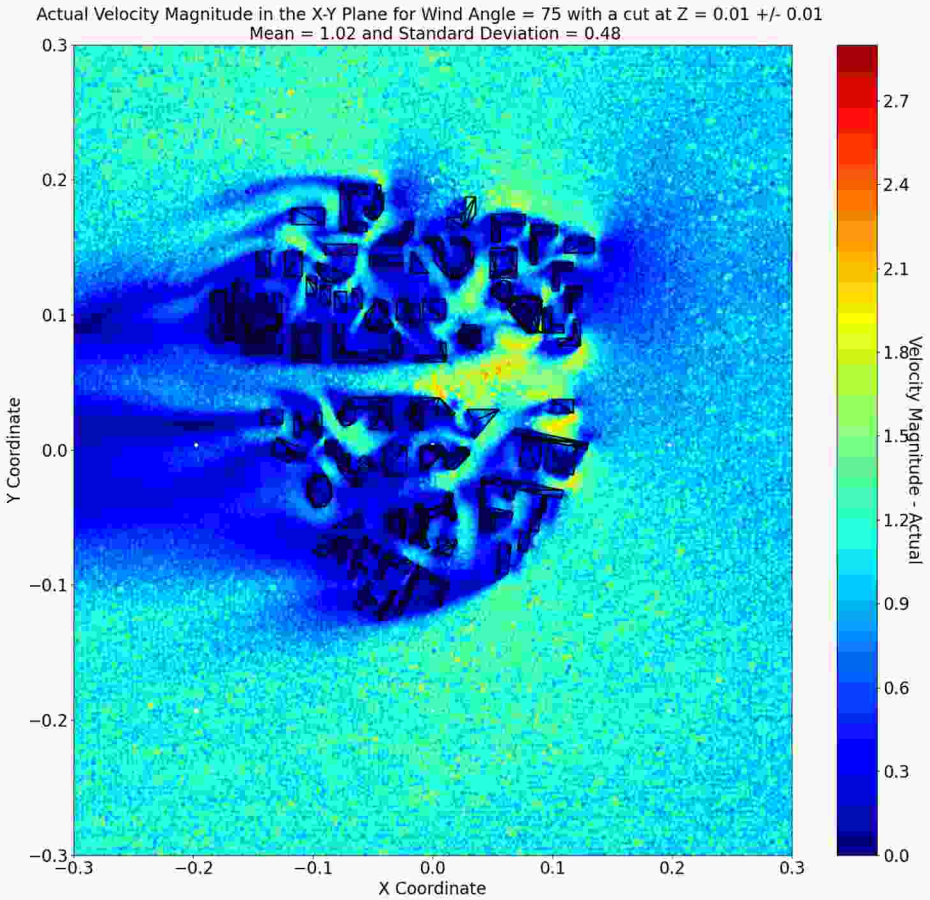


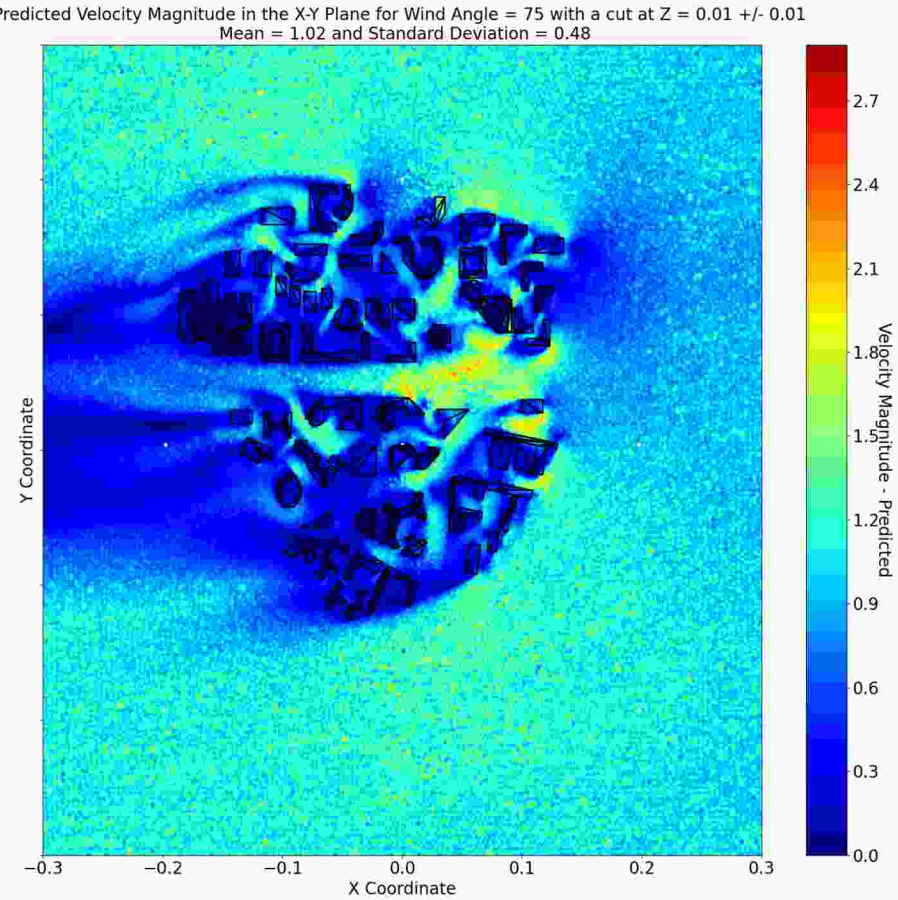


Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

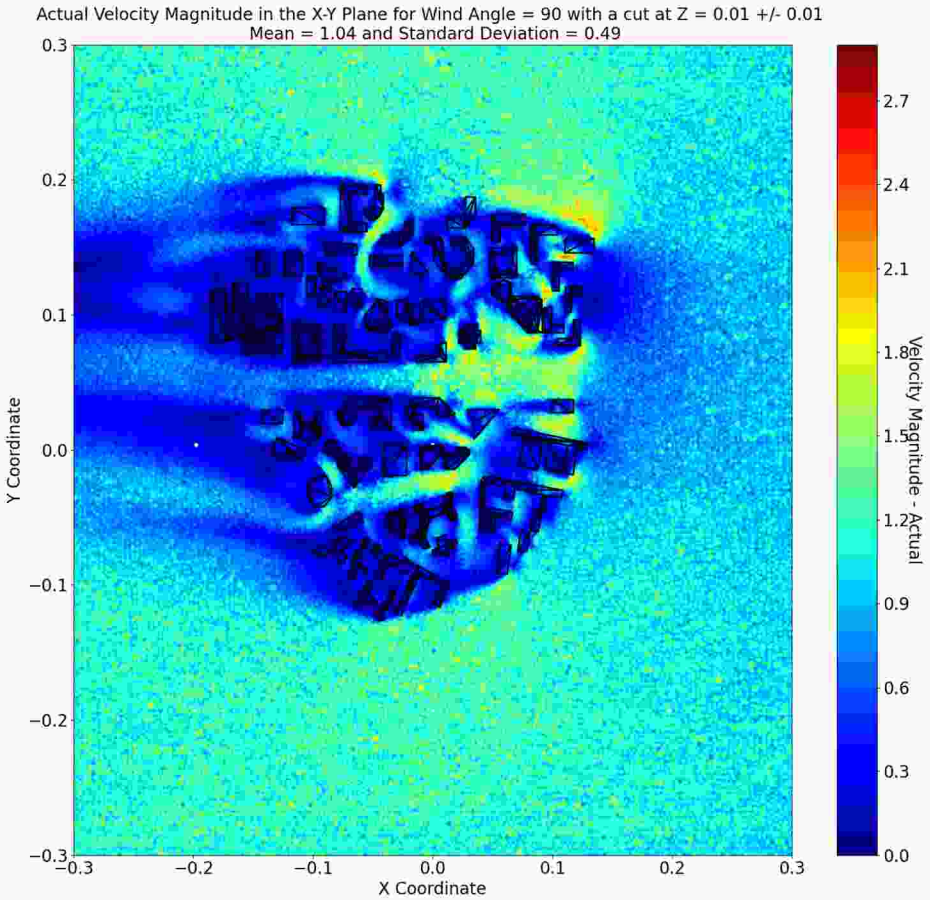


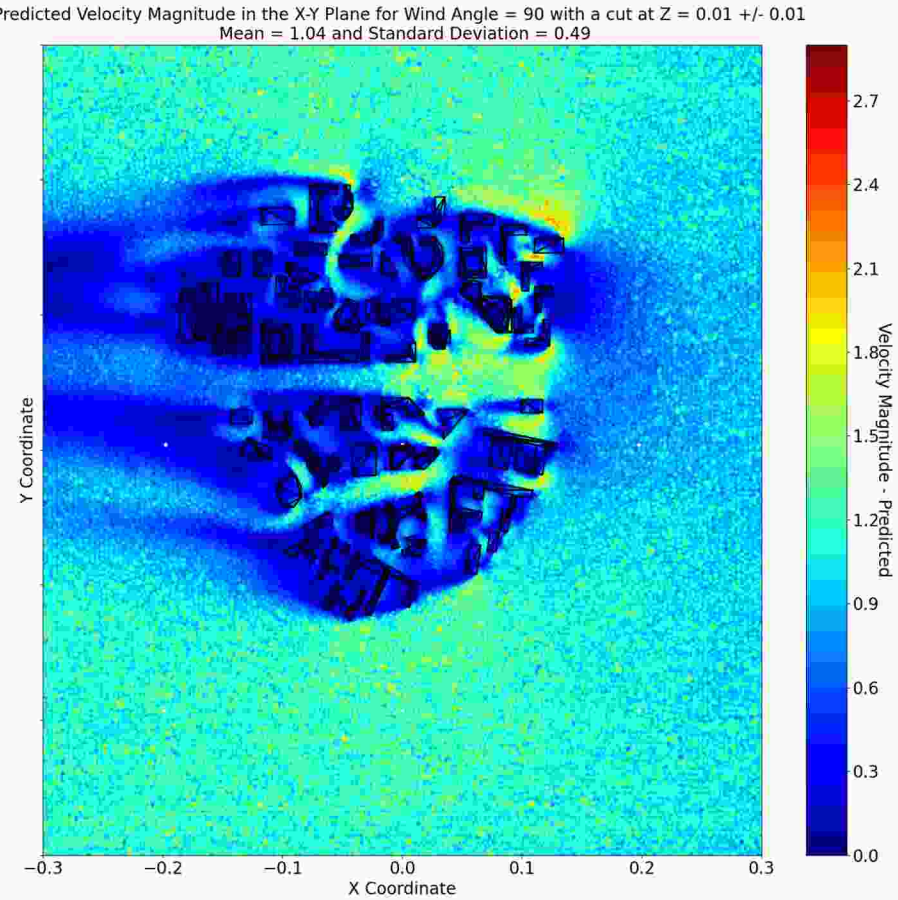
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



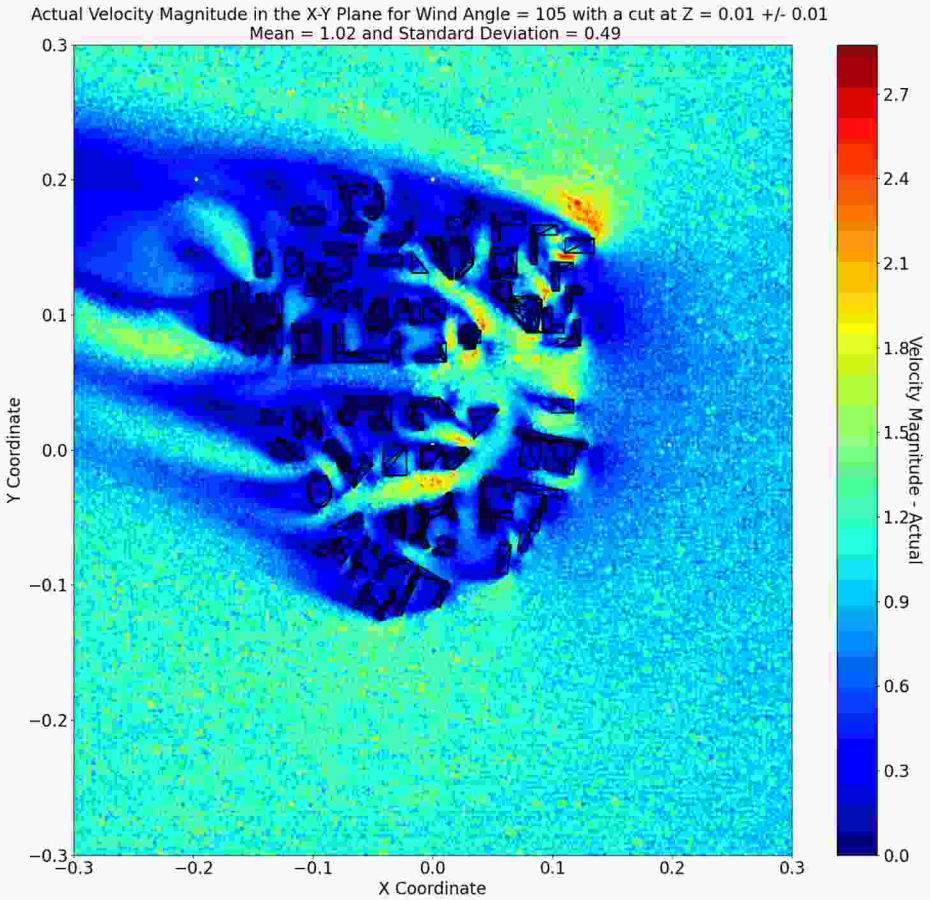


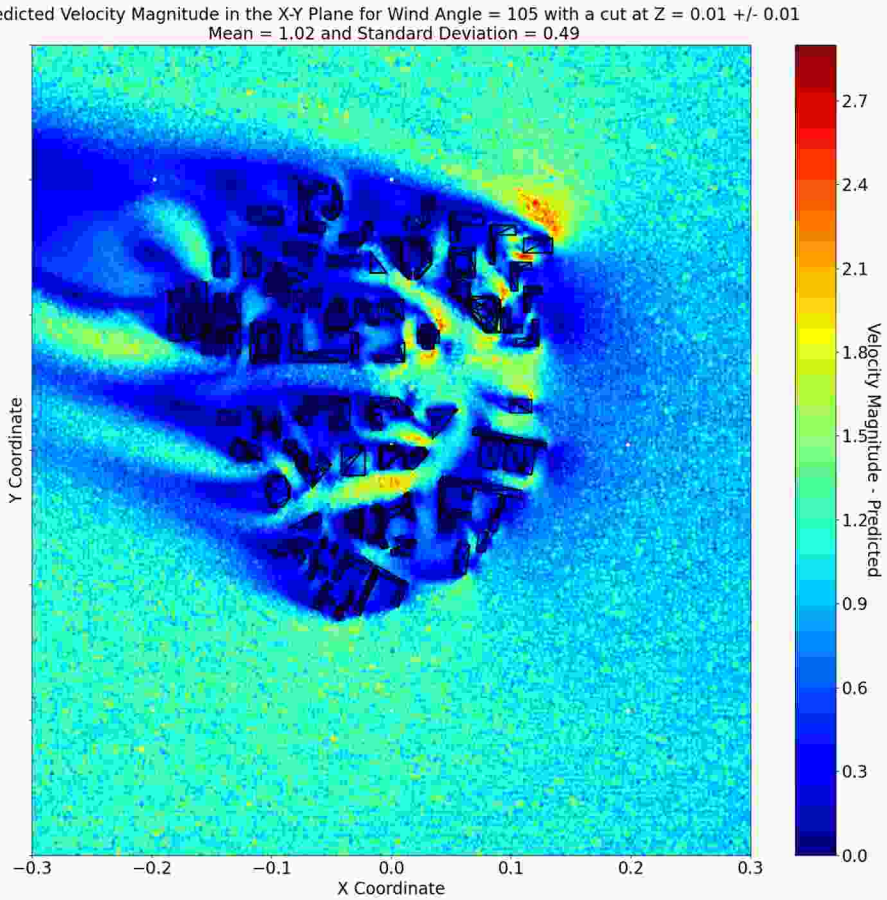
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



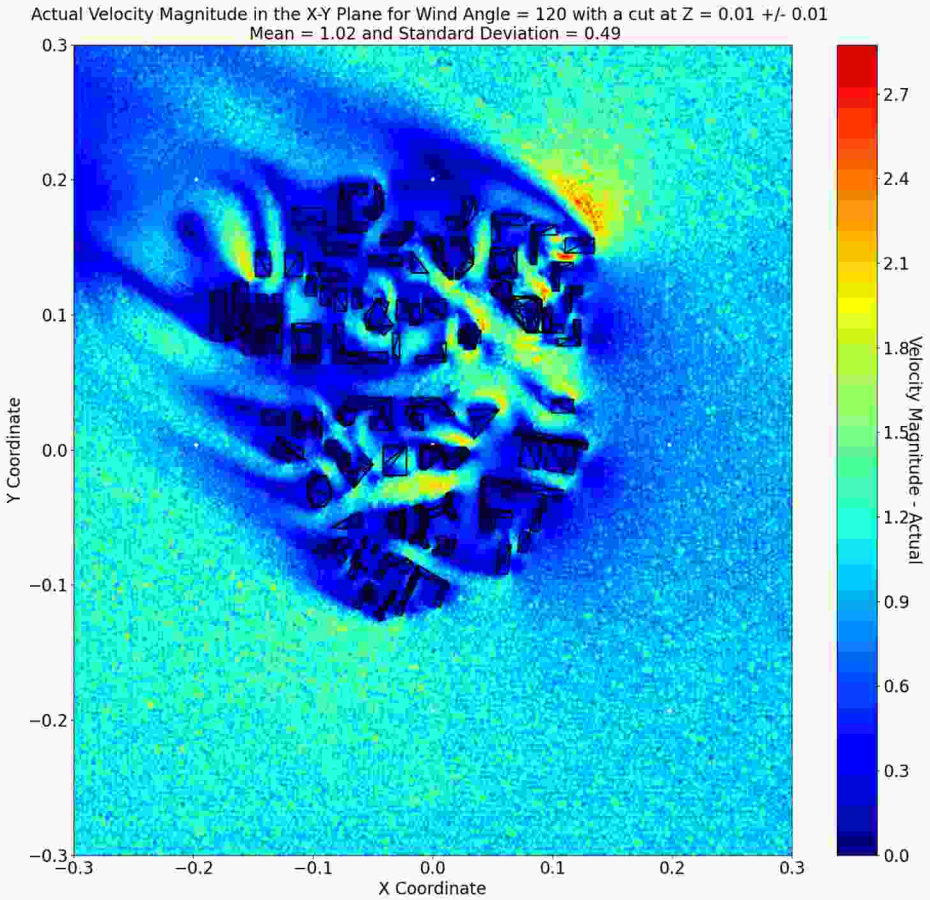


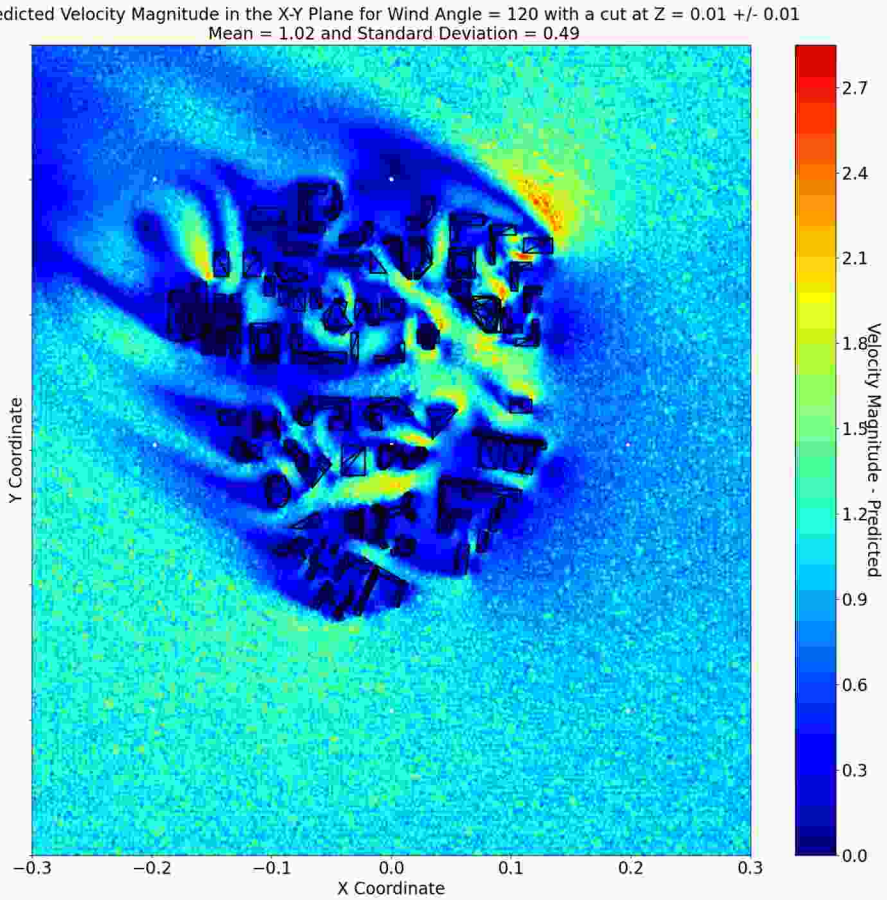
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



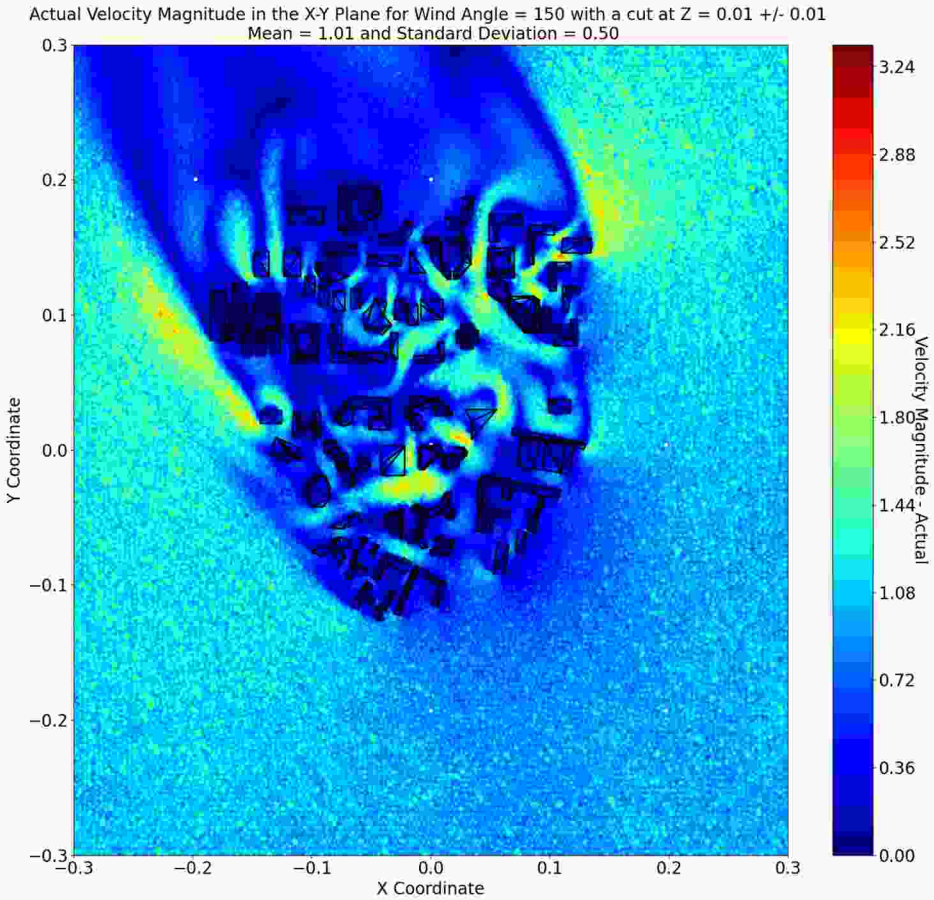


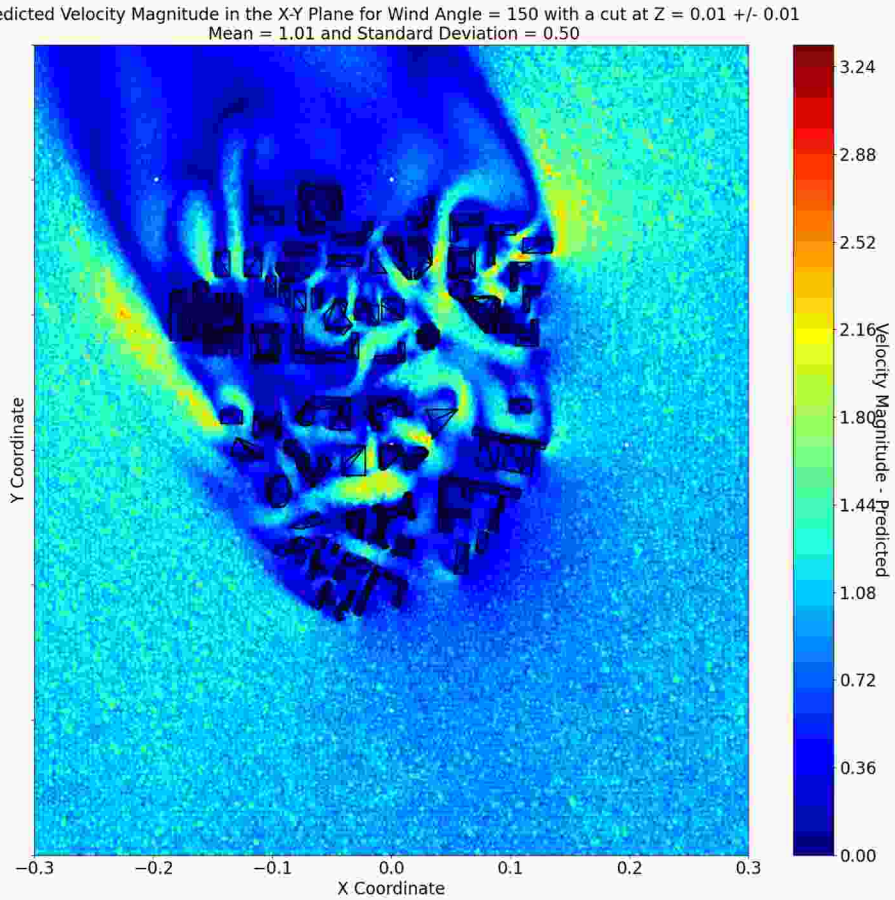
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



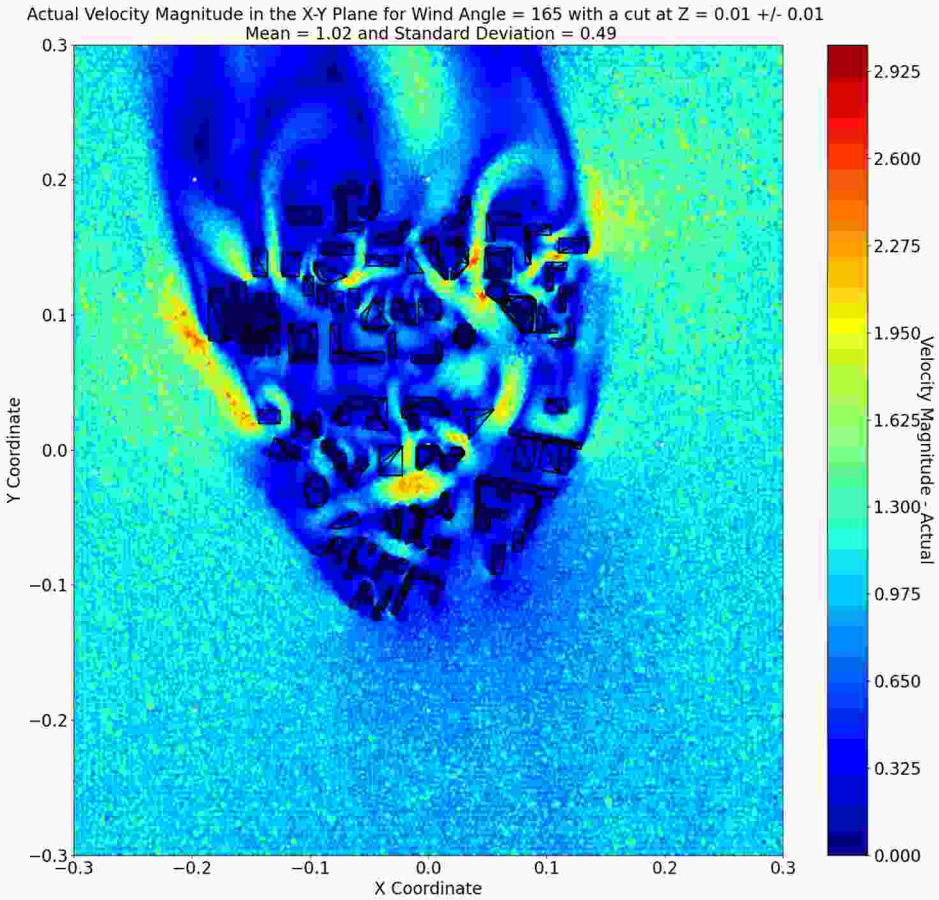


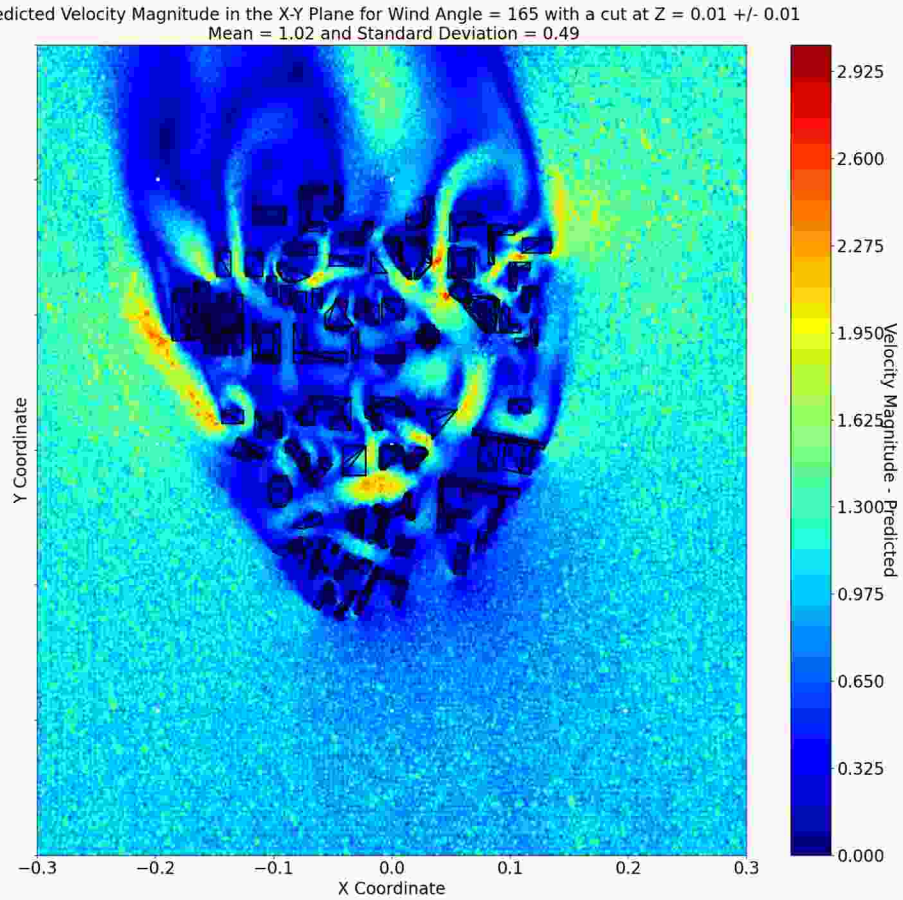
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



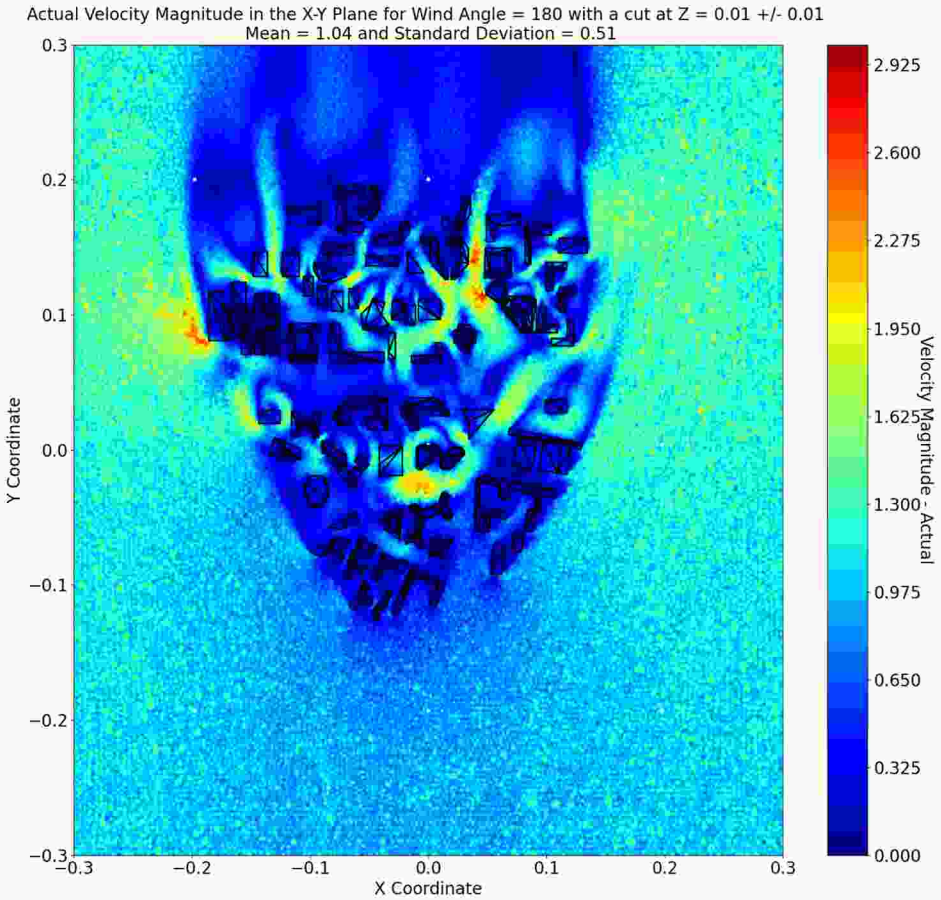


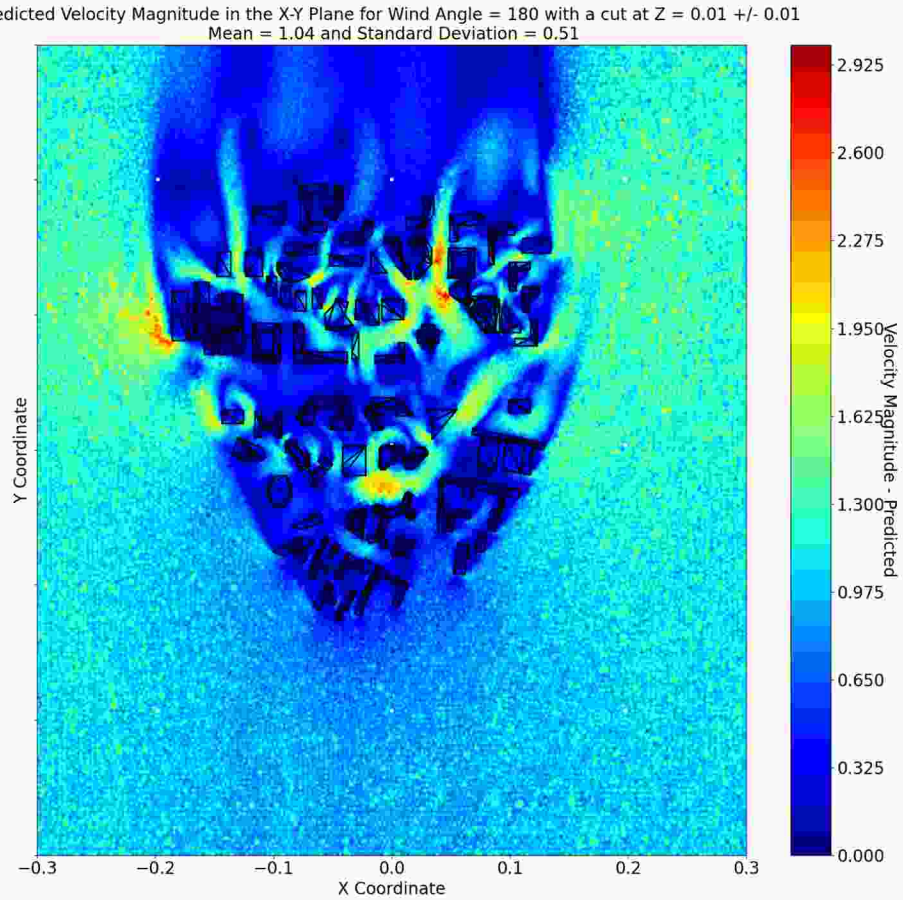
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



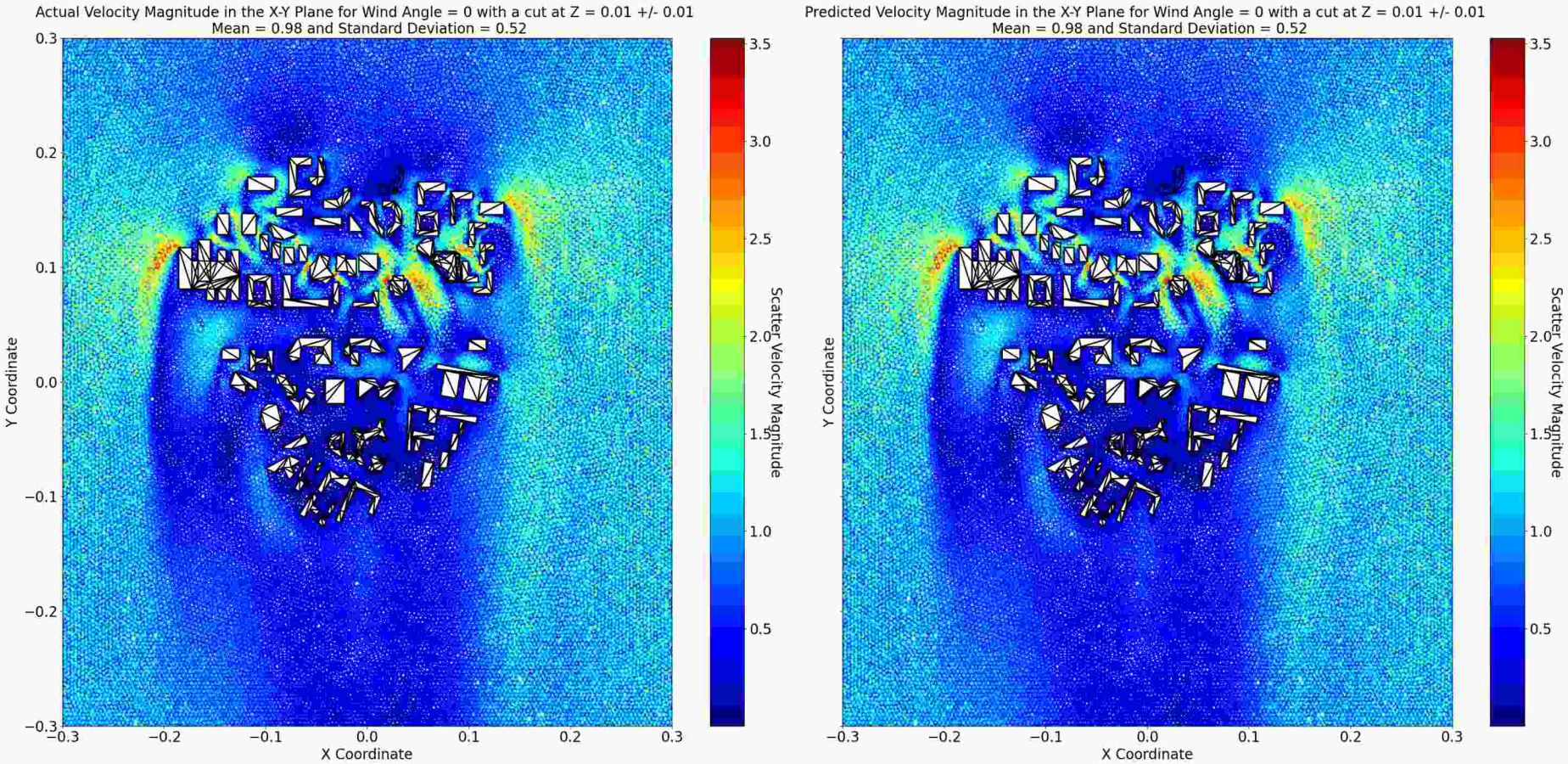


Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

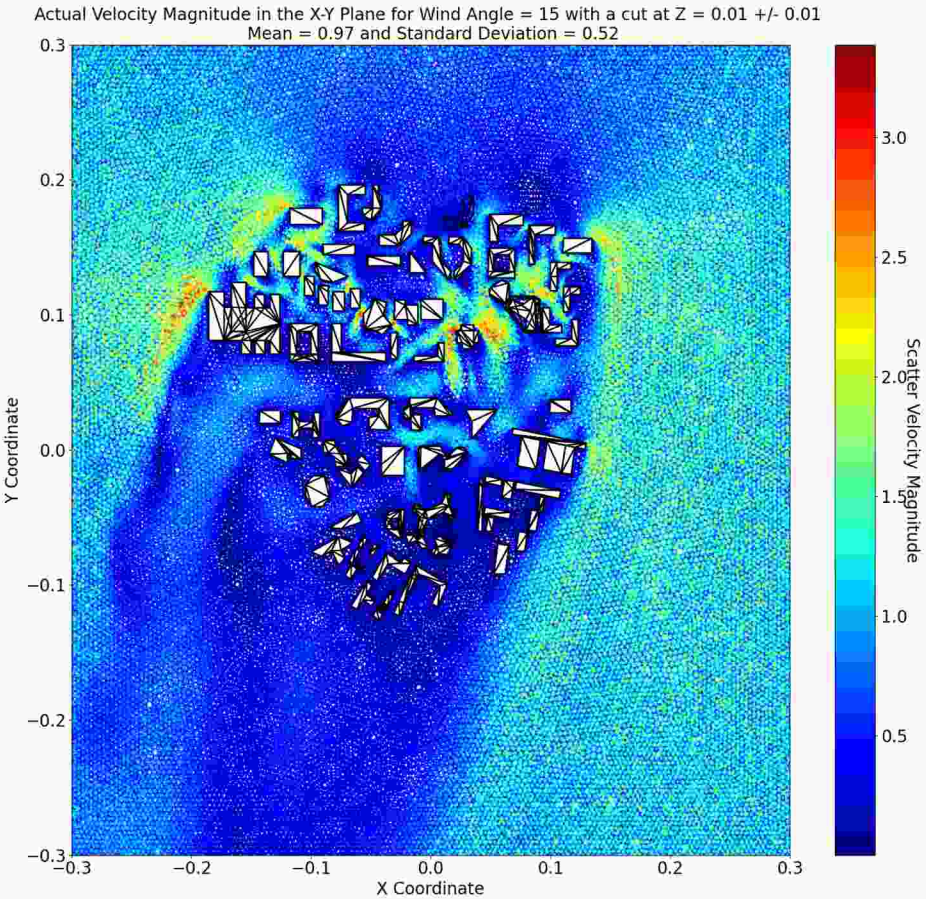


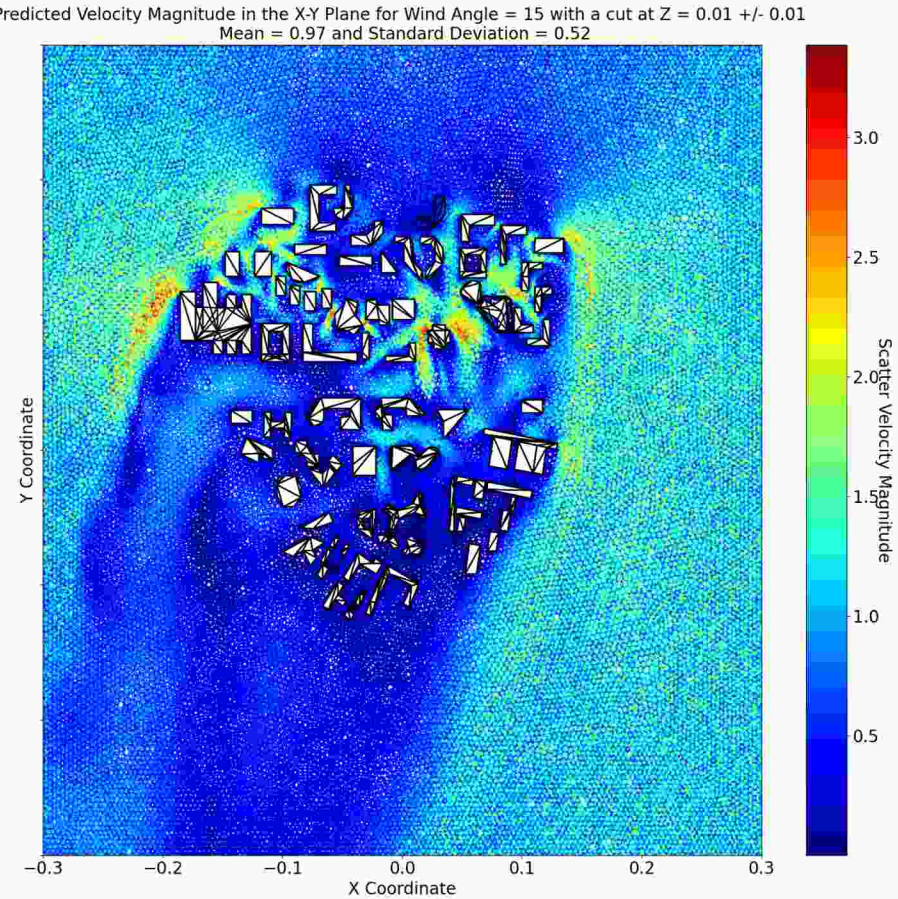


Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

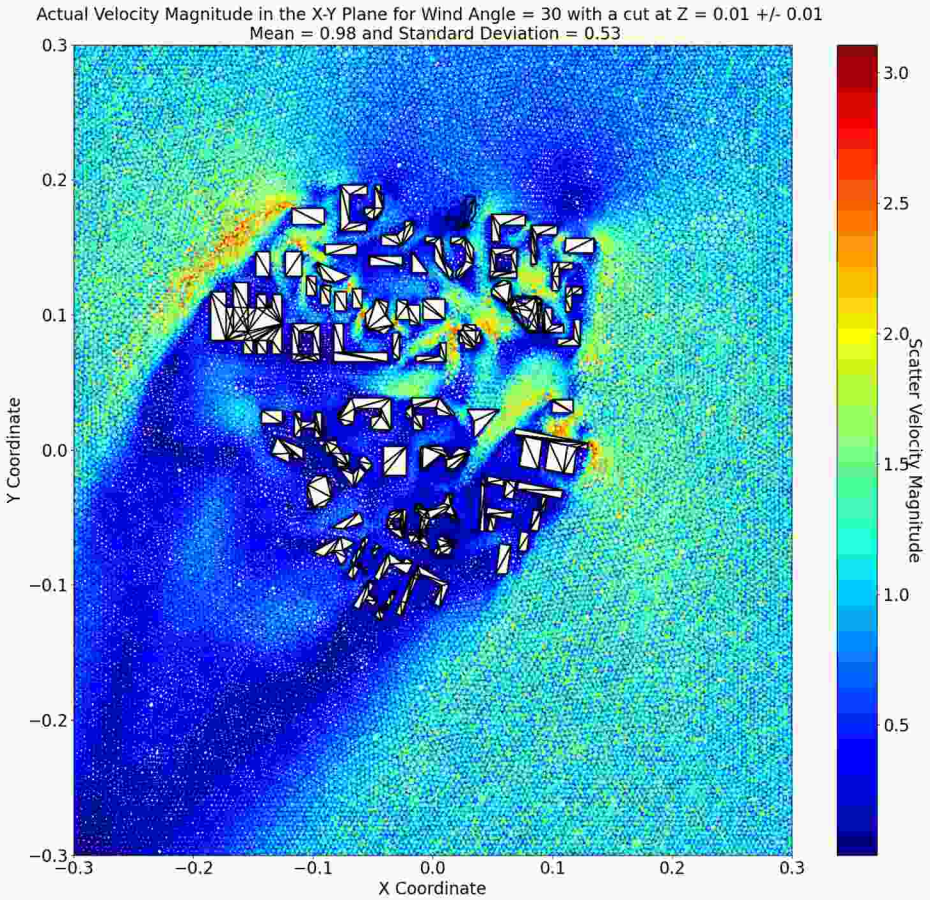


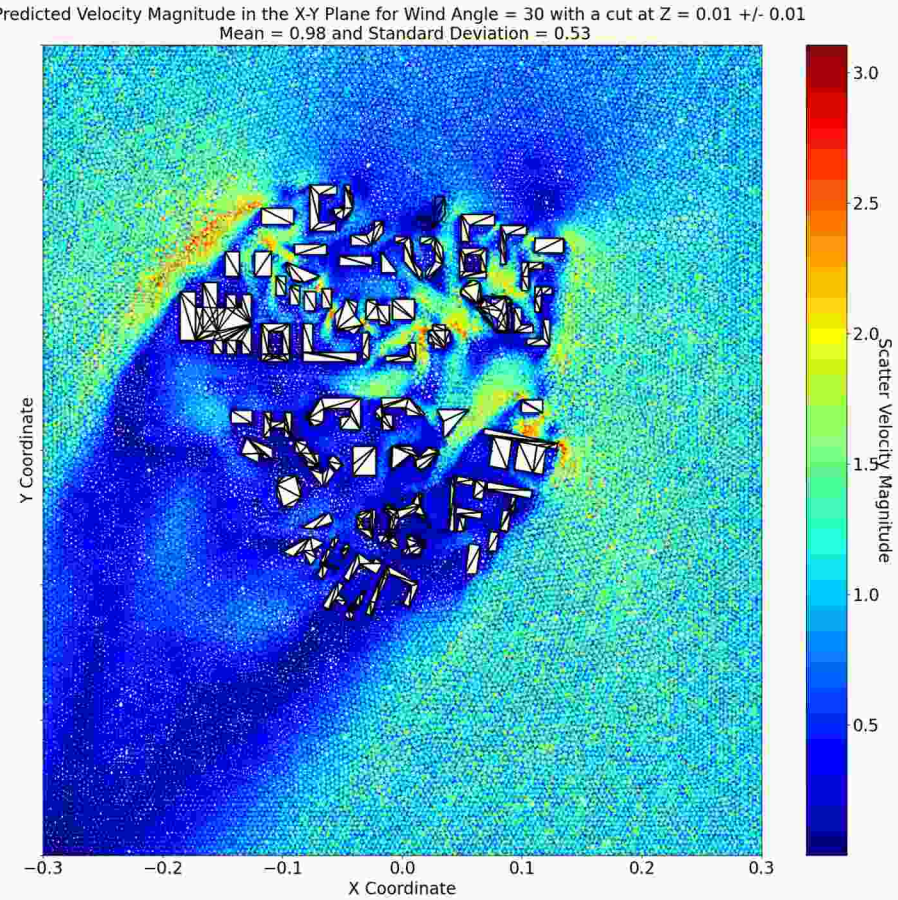
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



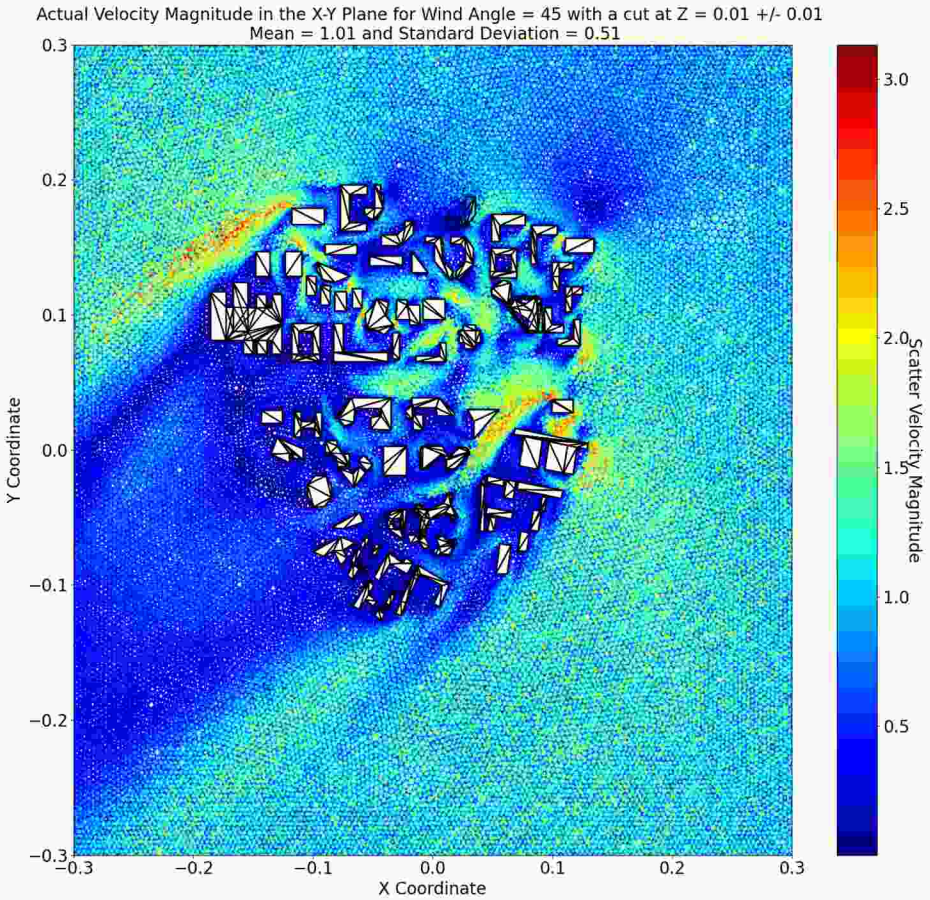


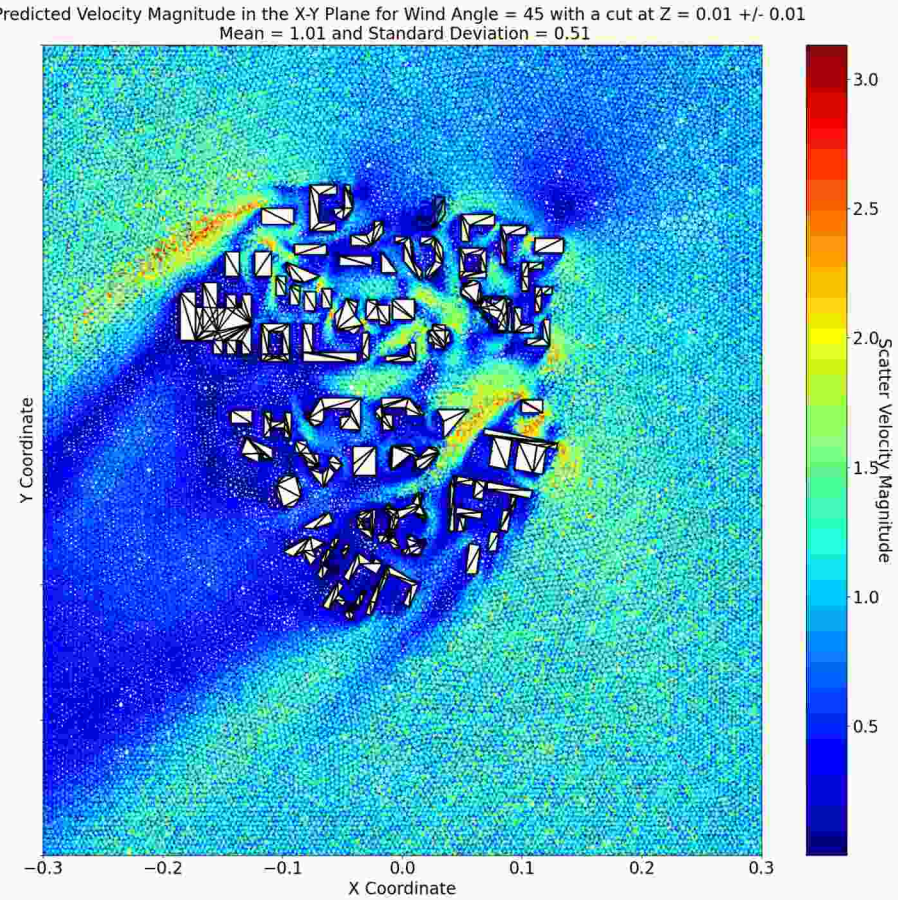
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



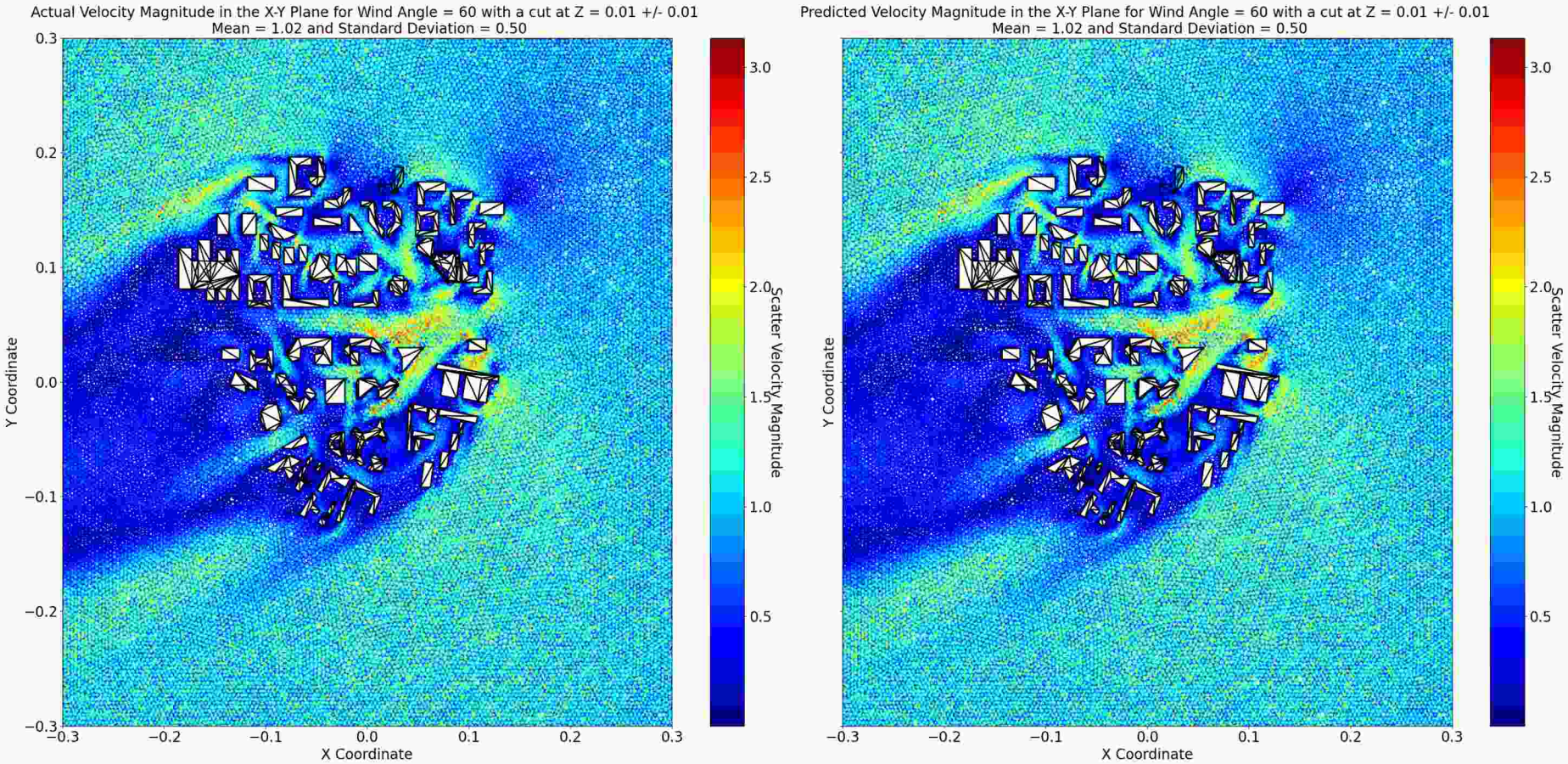


Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

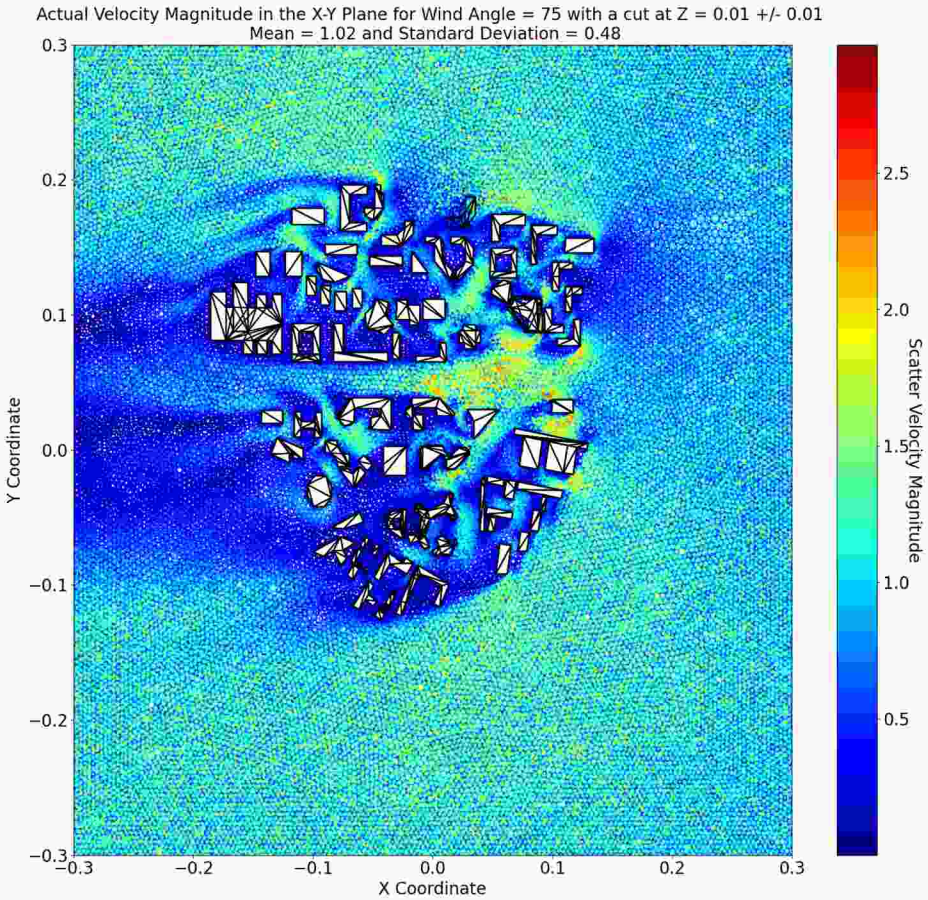


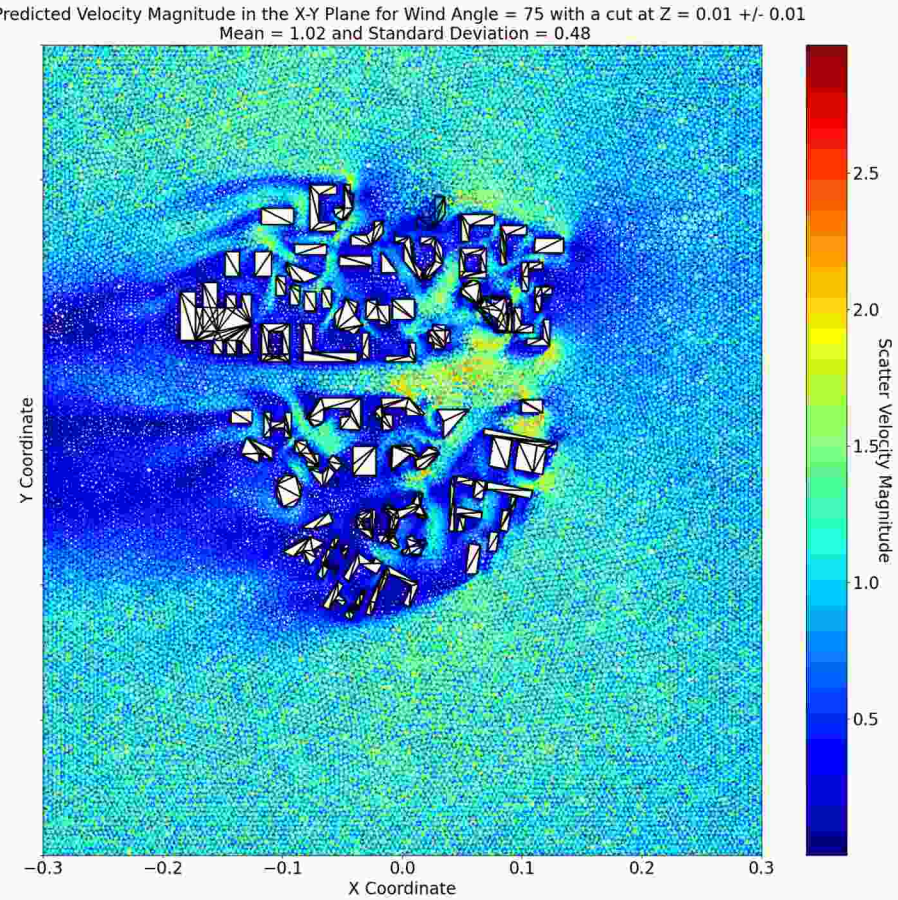


Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

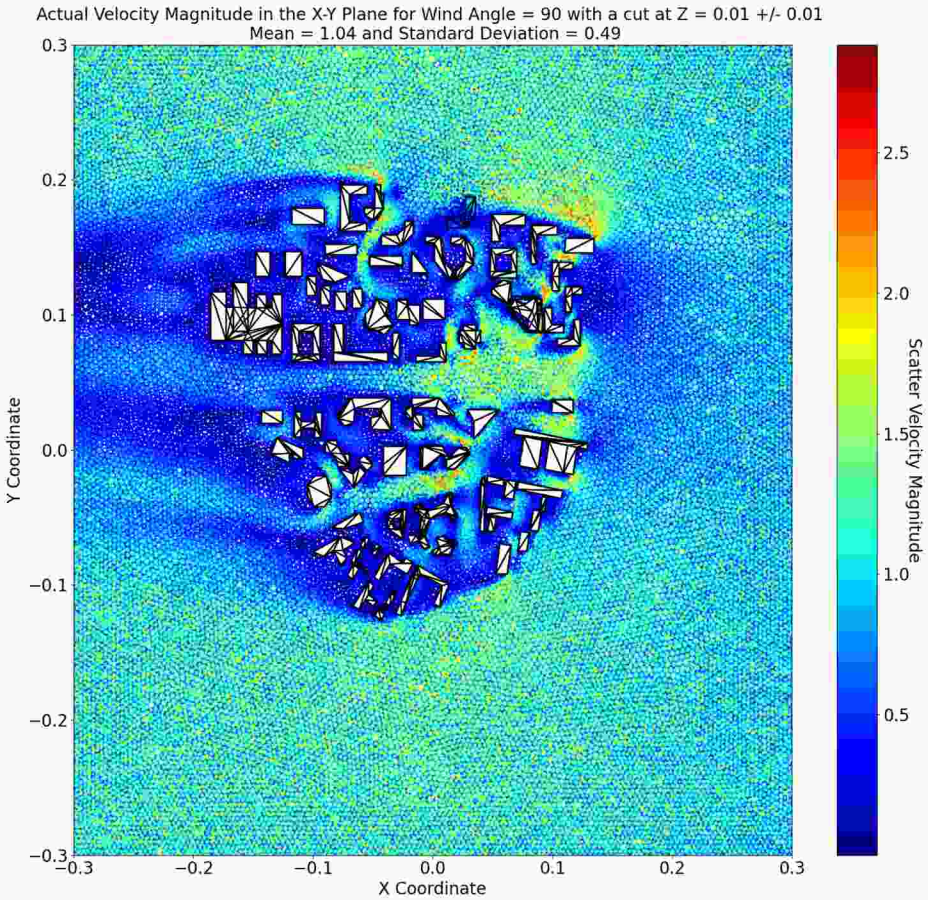


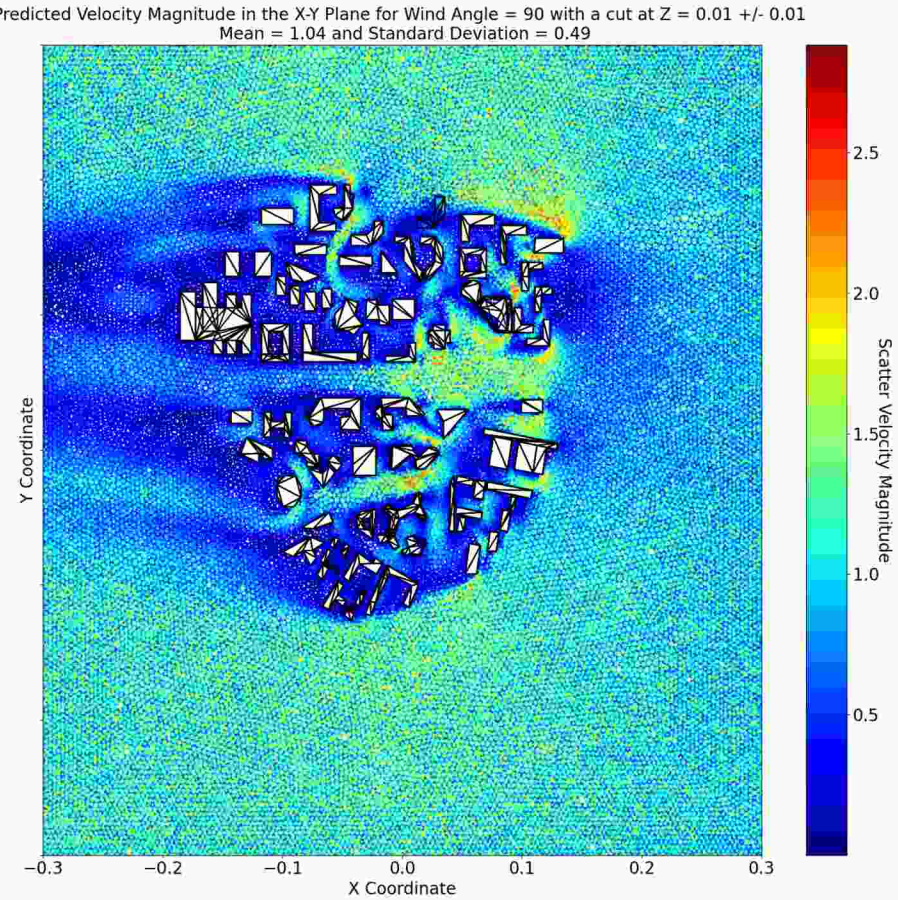
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



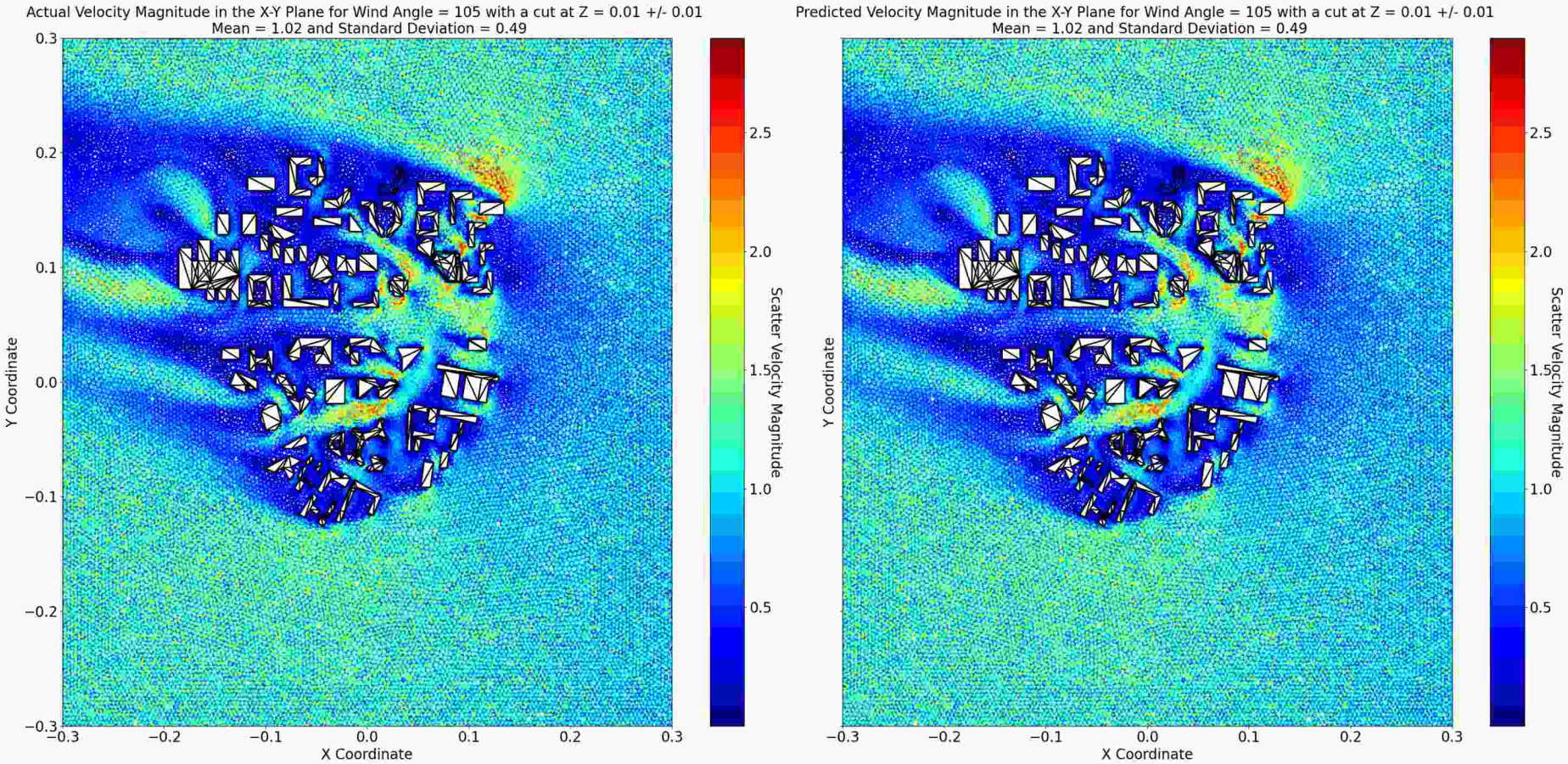


Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

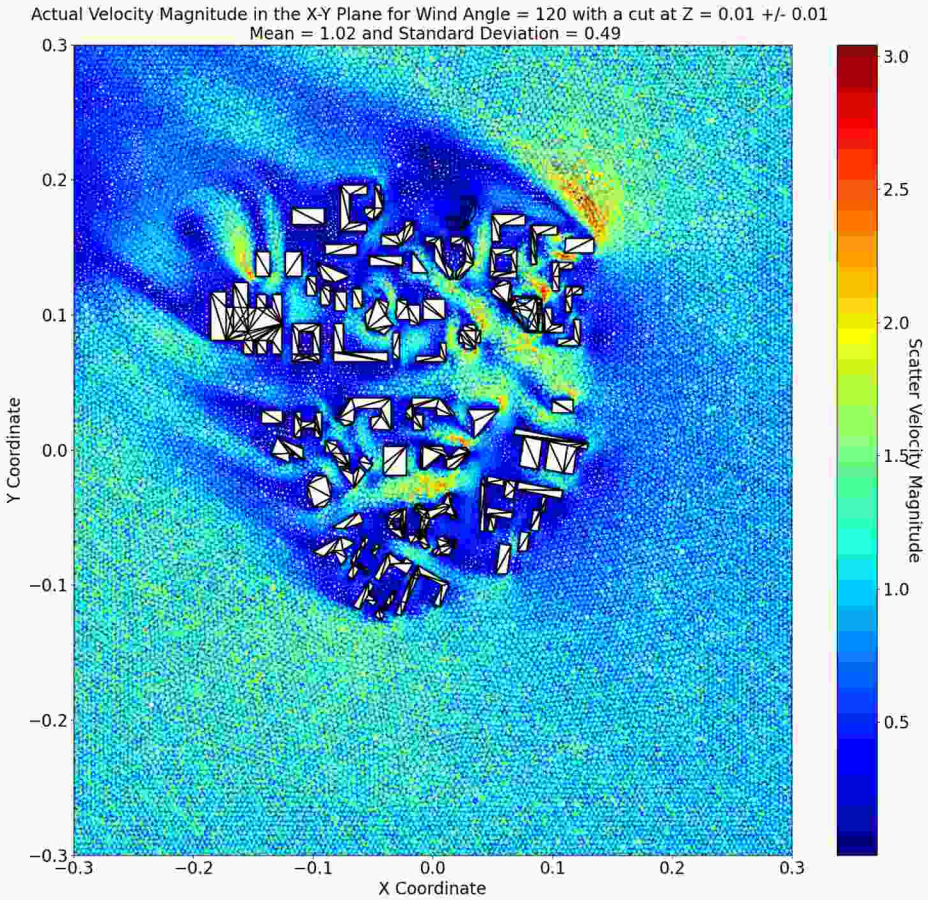


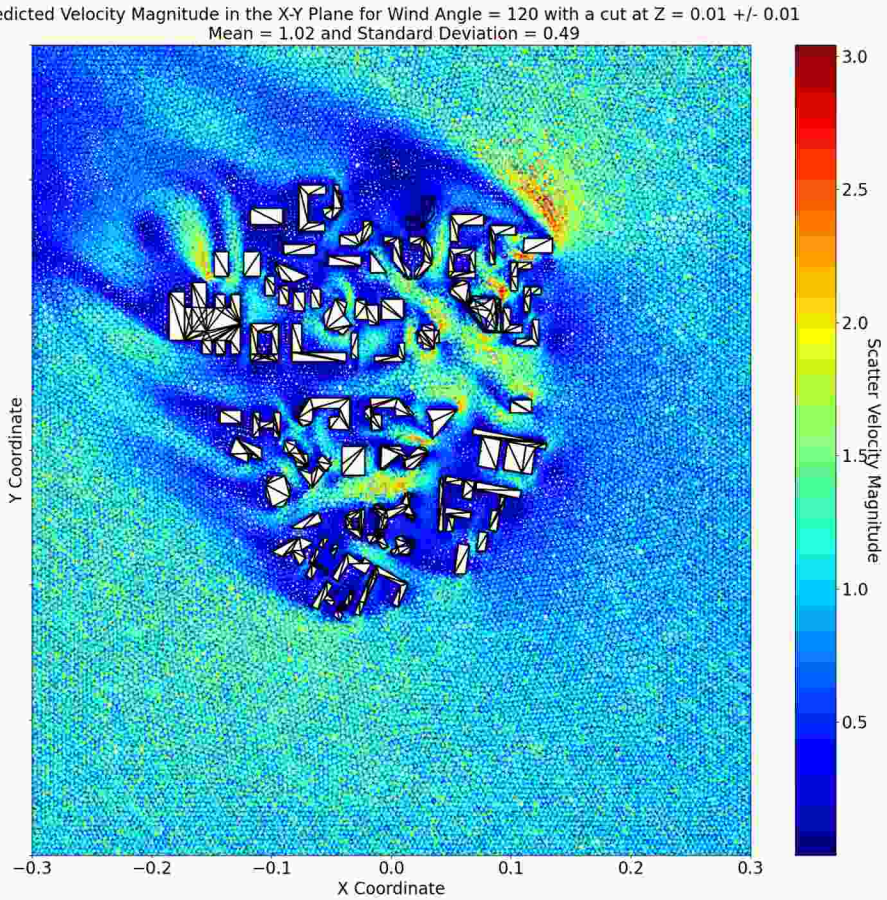


Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

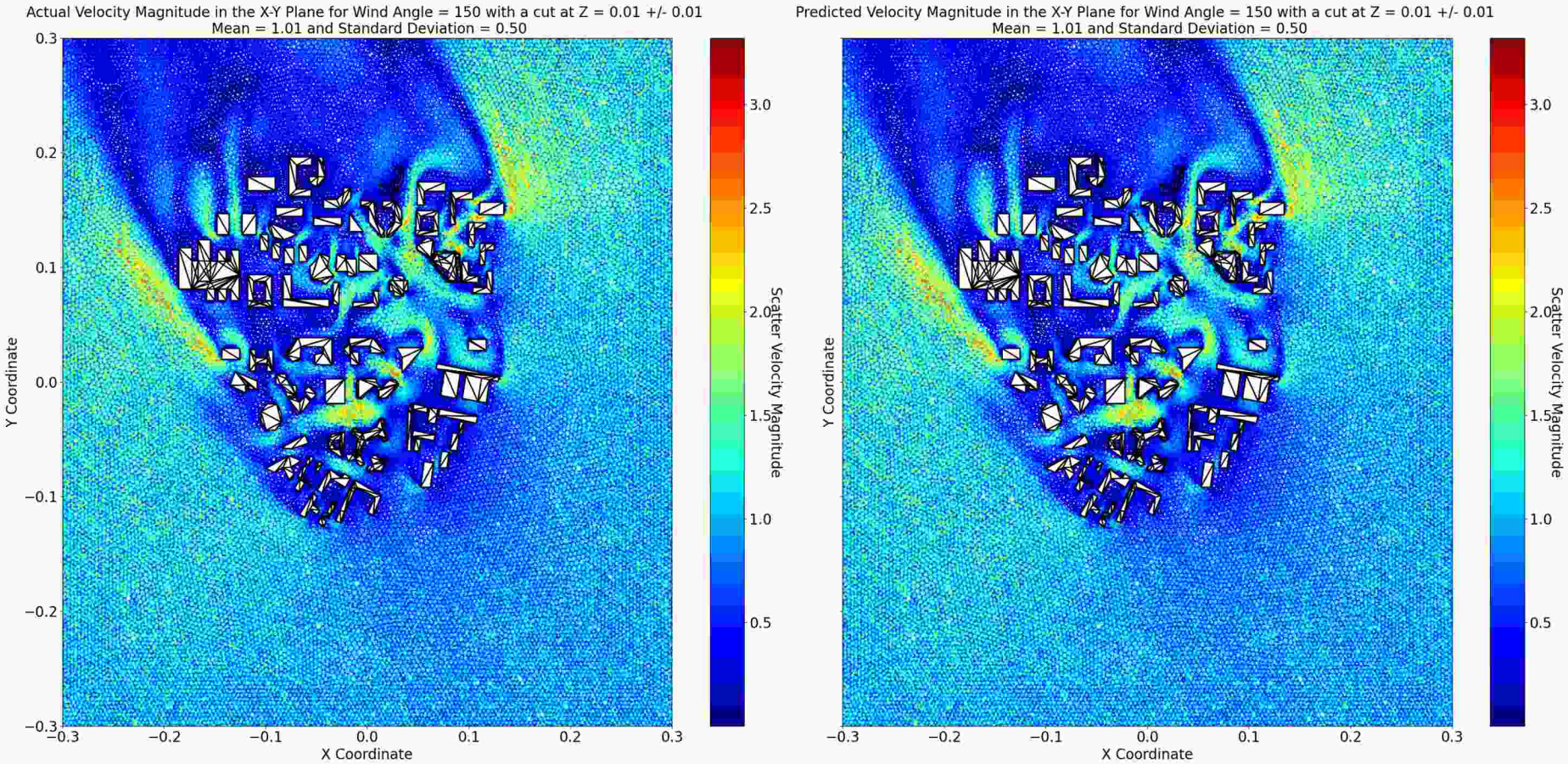


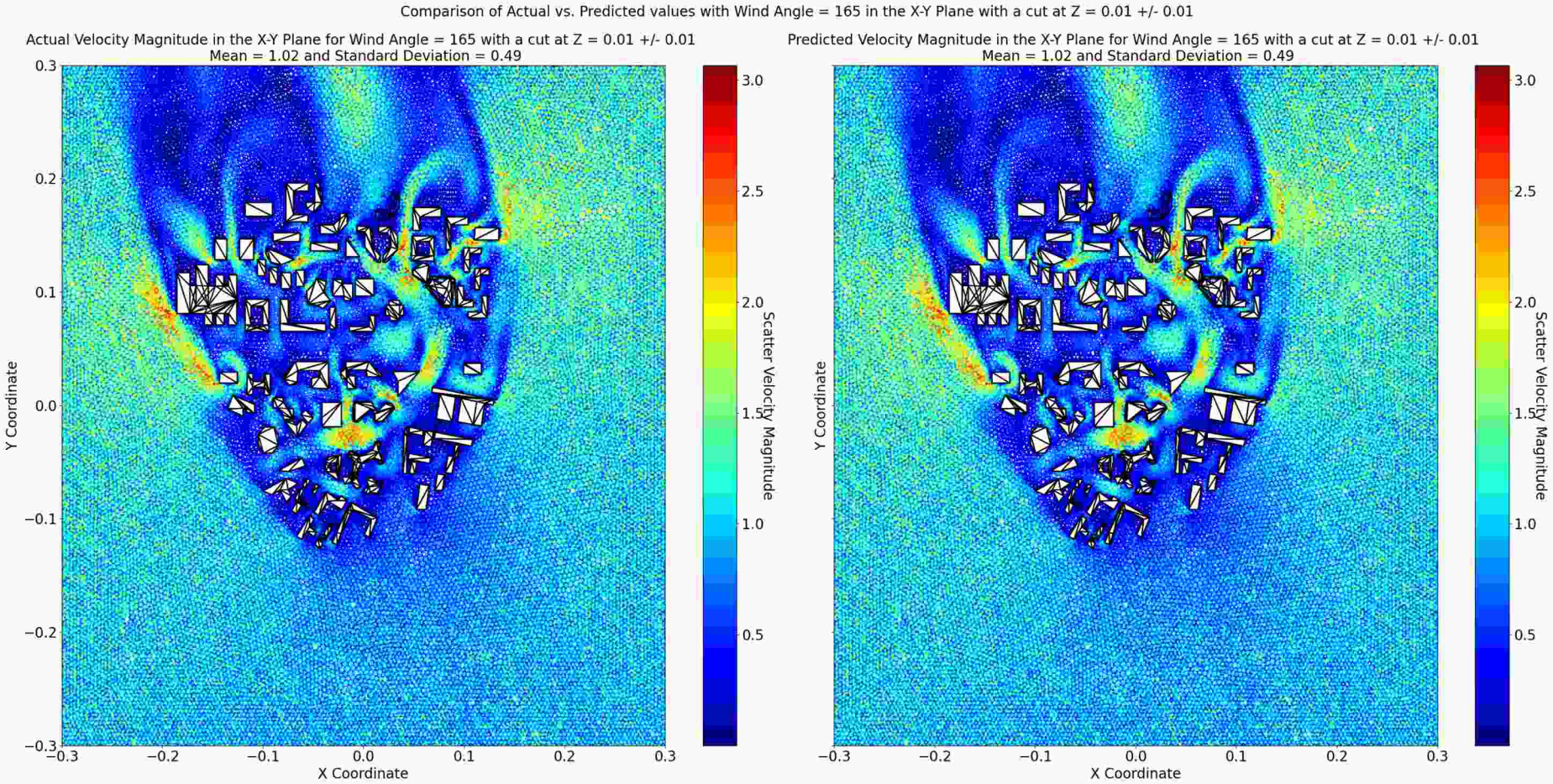
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



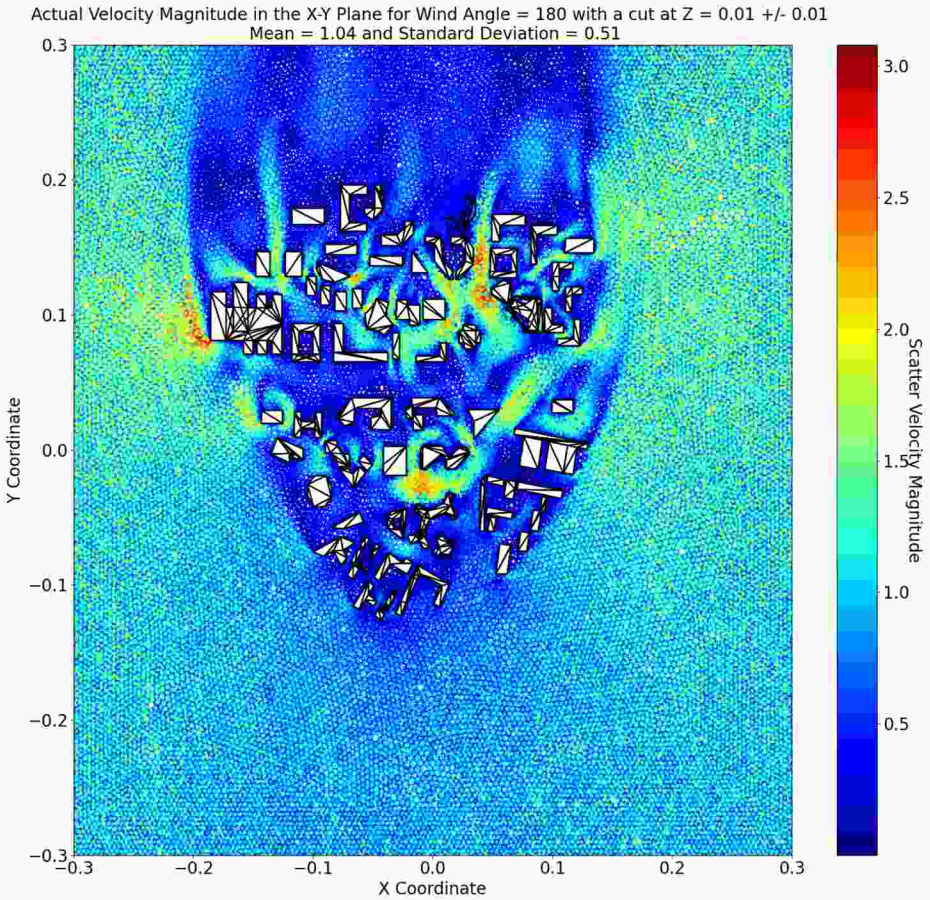


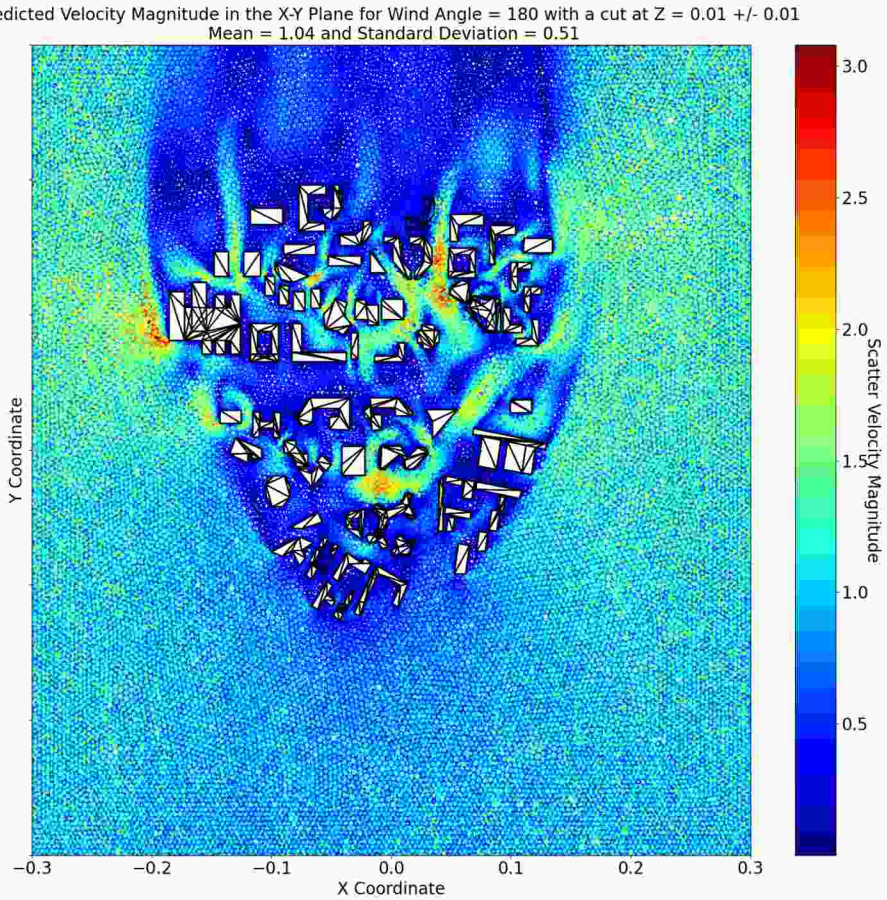
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

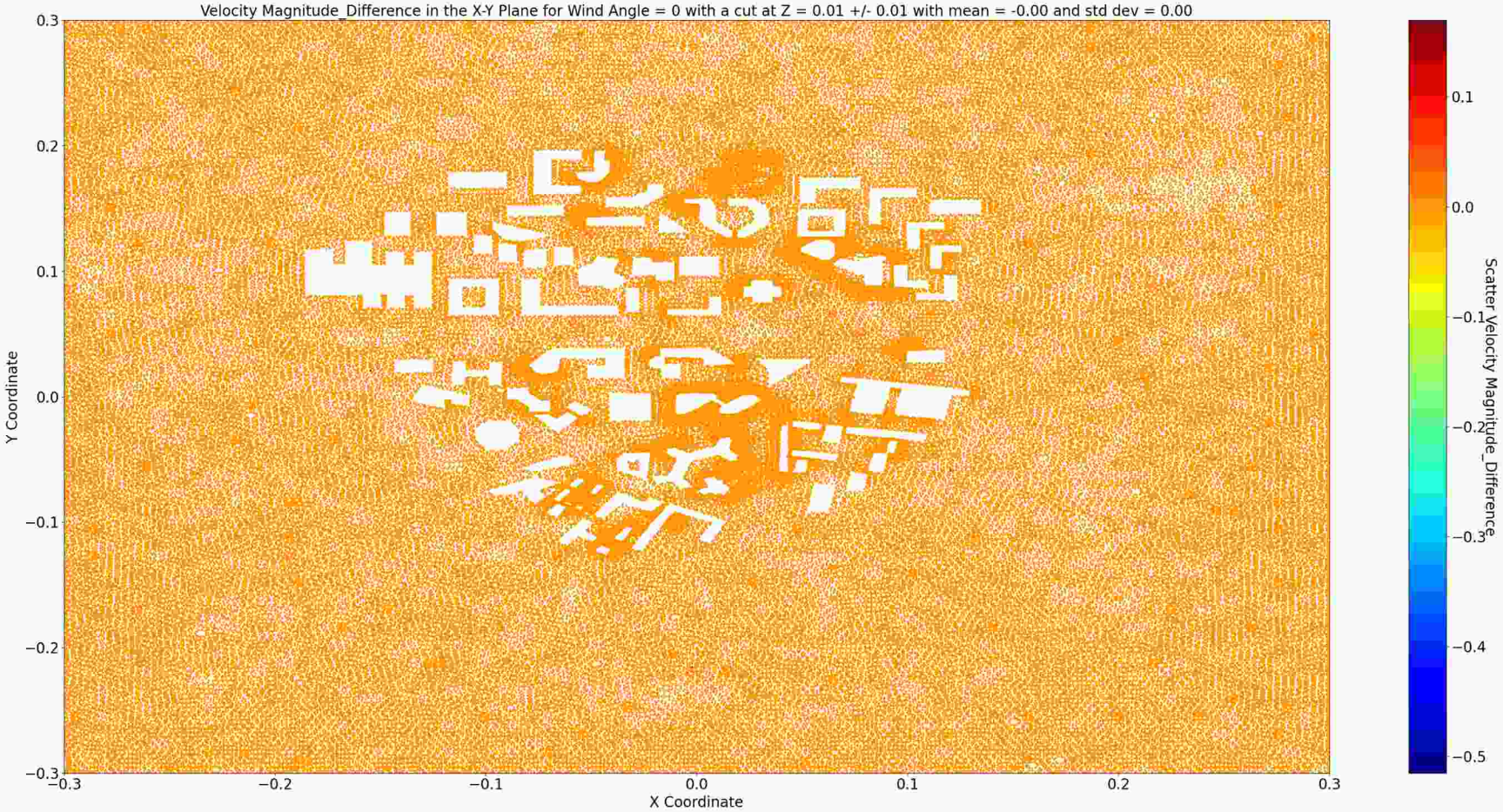


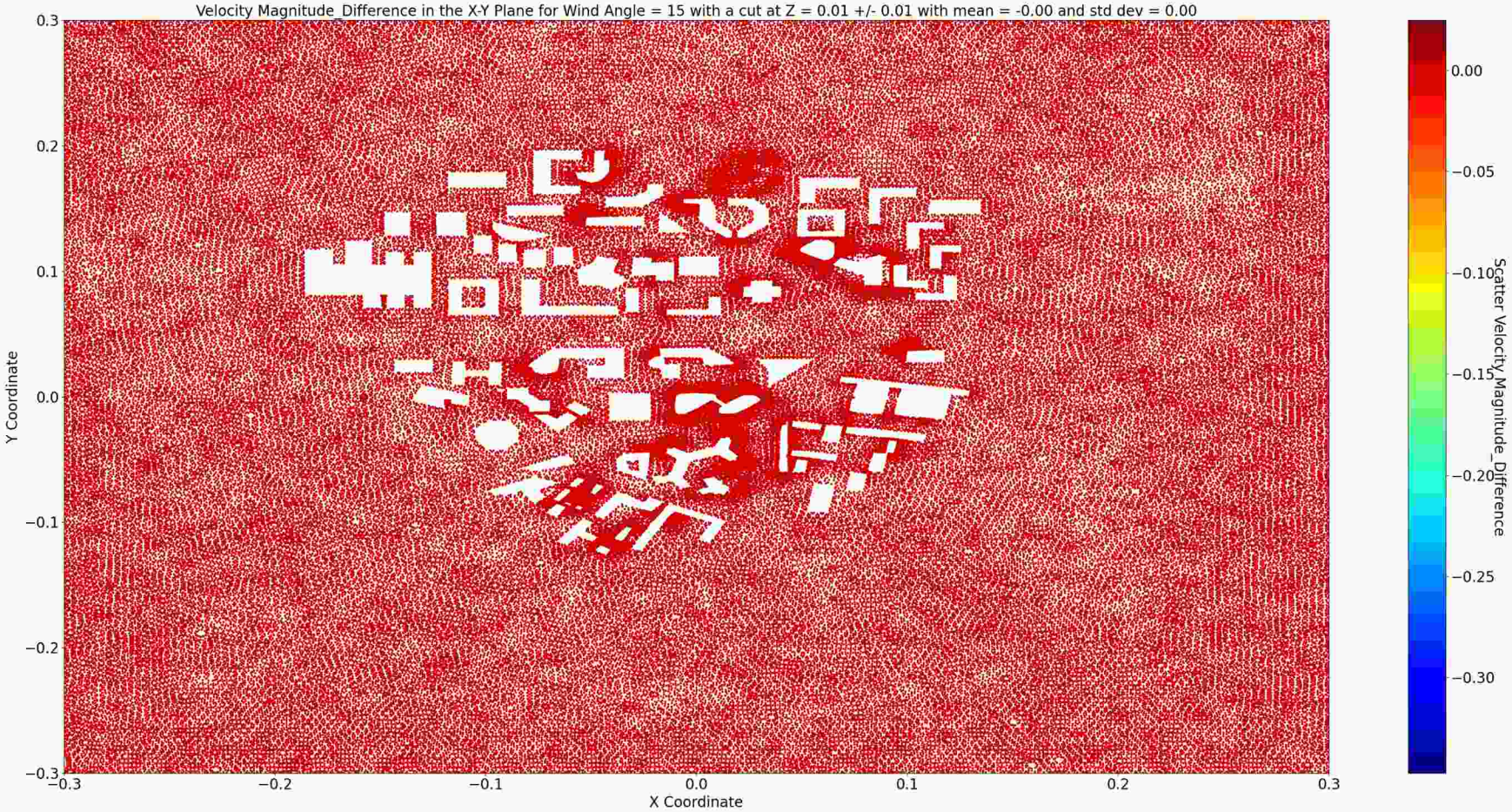

Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual Velocity Magnitude in the X-Y Plane for Wind Angle = 165 with a cut at Z = 0.01 +/- 0.01
Mean = 1.02 and Standard Deviation = 0.49
Predicted Velocity Magnitude in the X-Y Plane for Wind Angle = 165 with a cut at Z = 0.01 +/- 0.01
Mean = 1.02 and Standard Deviation = 0.49
Y Coordinate
X Coordinate
Scatter Velocity Magnitude
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
3.0
2.5
2.0
1.5
1.0
0.5

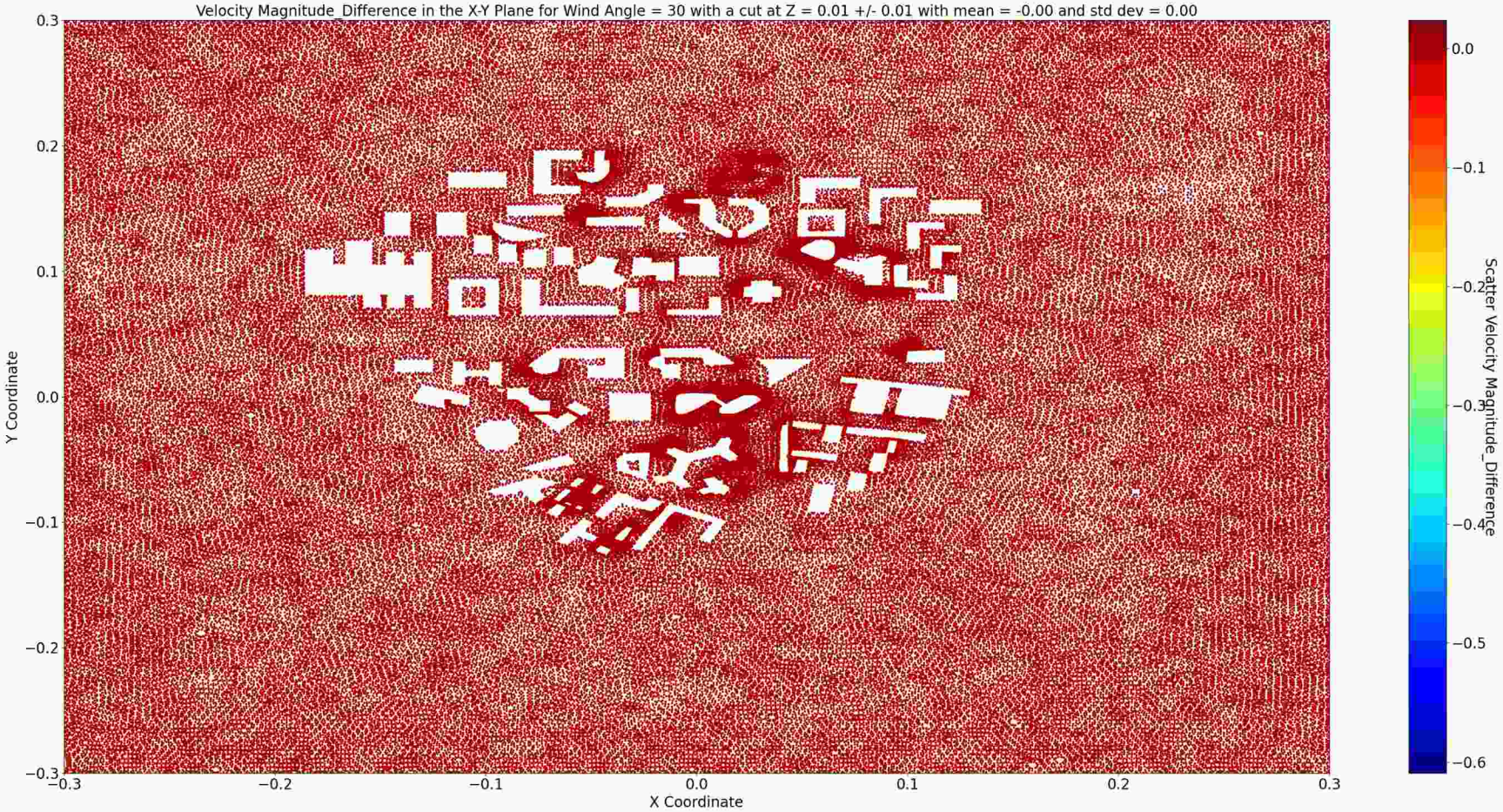
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

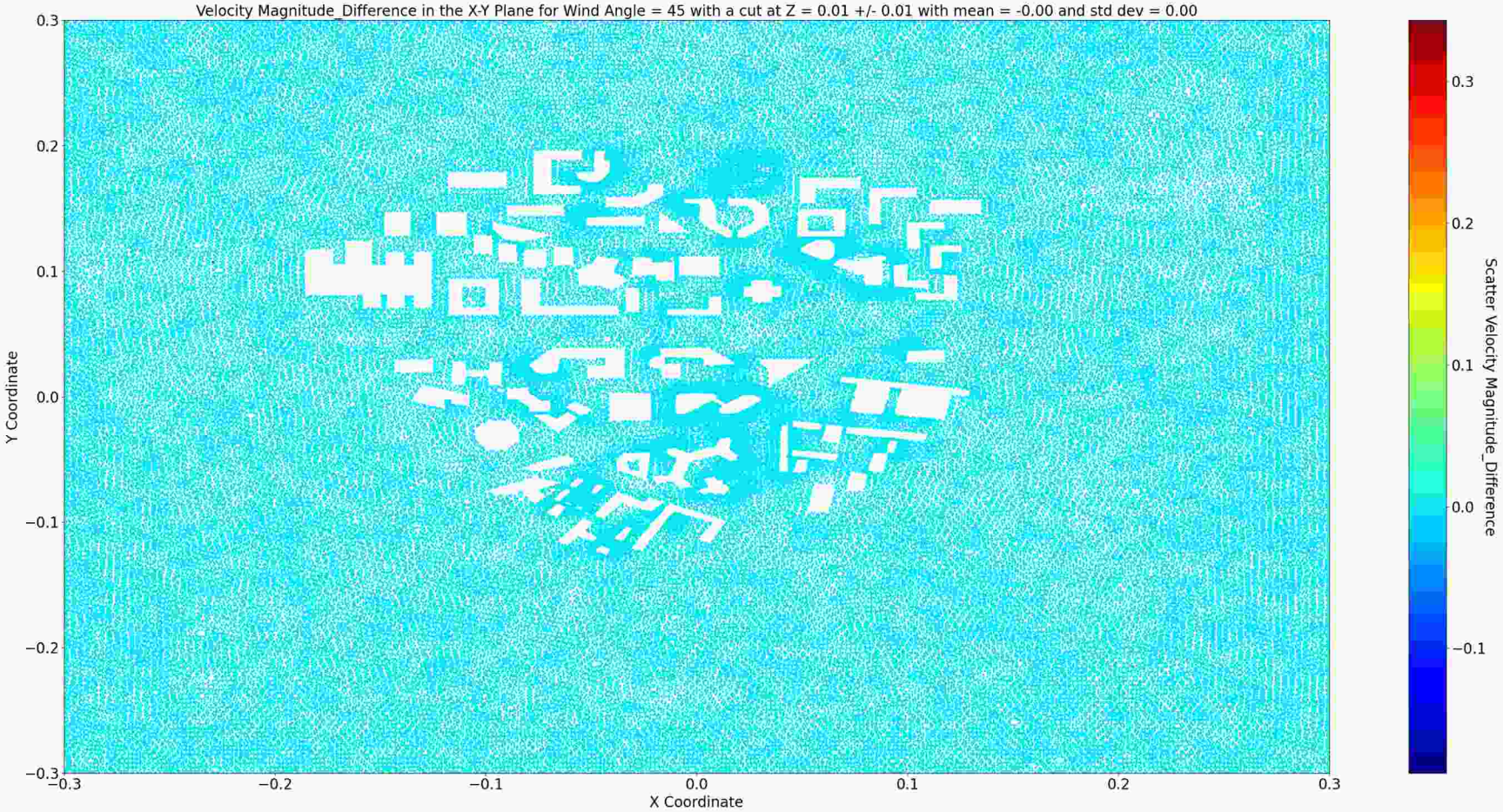


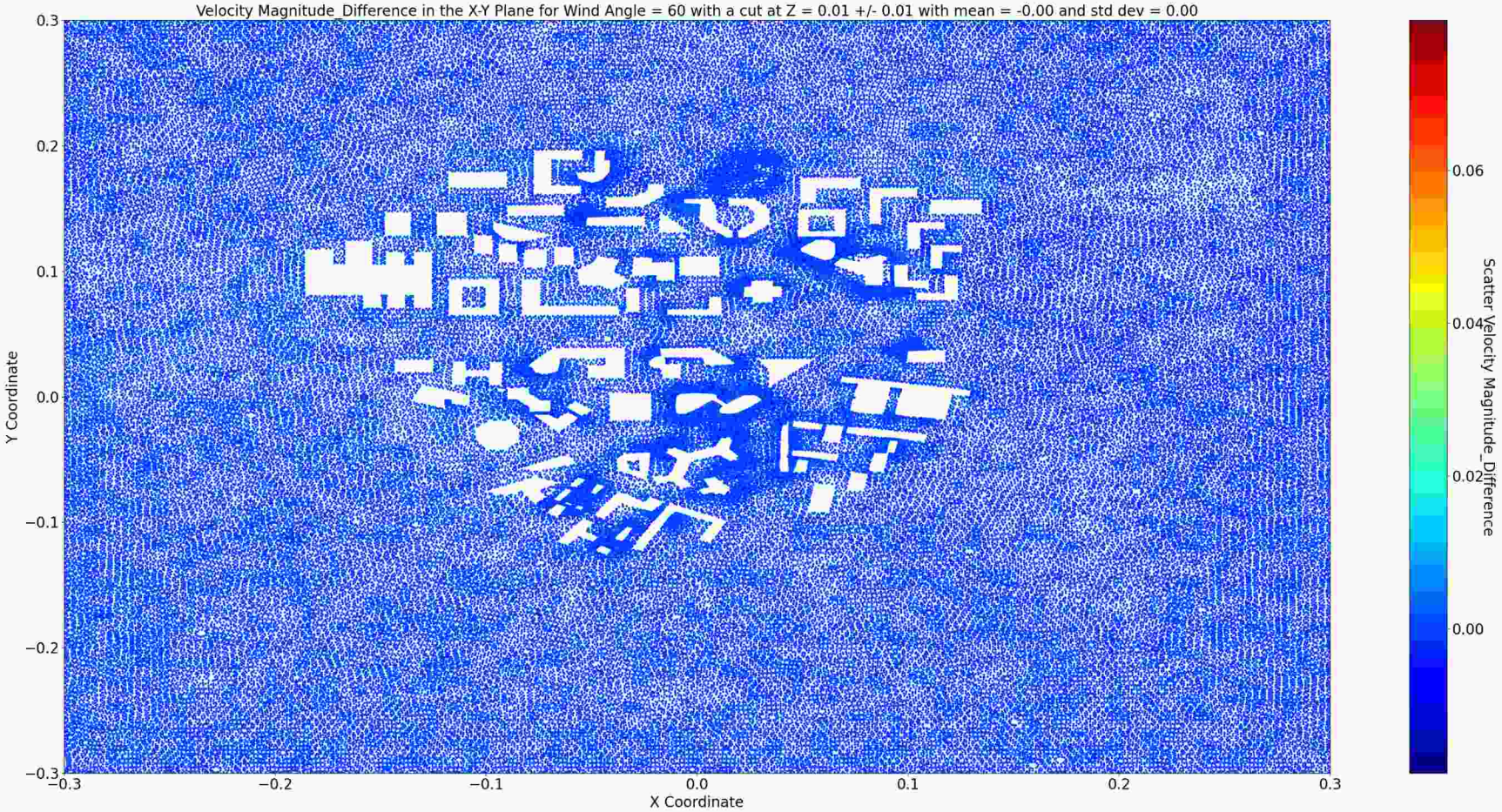


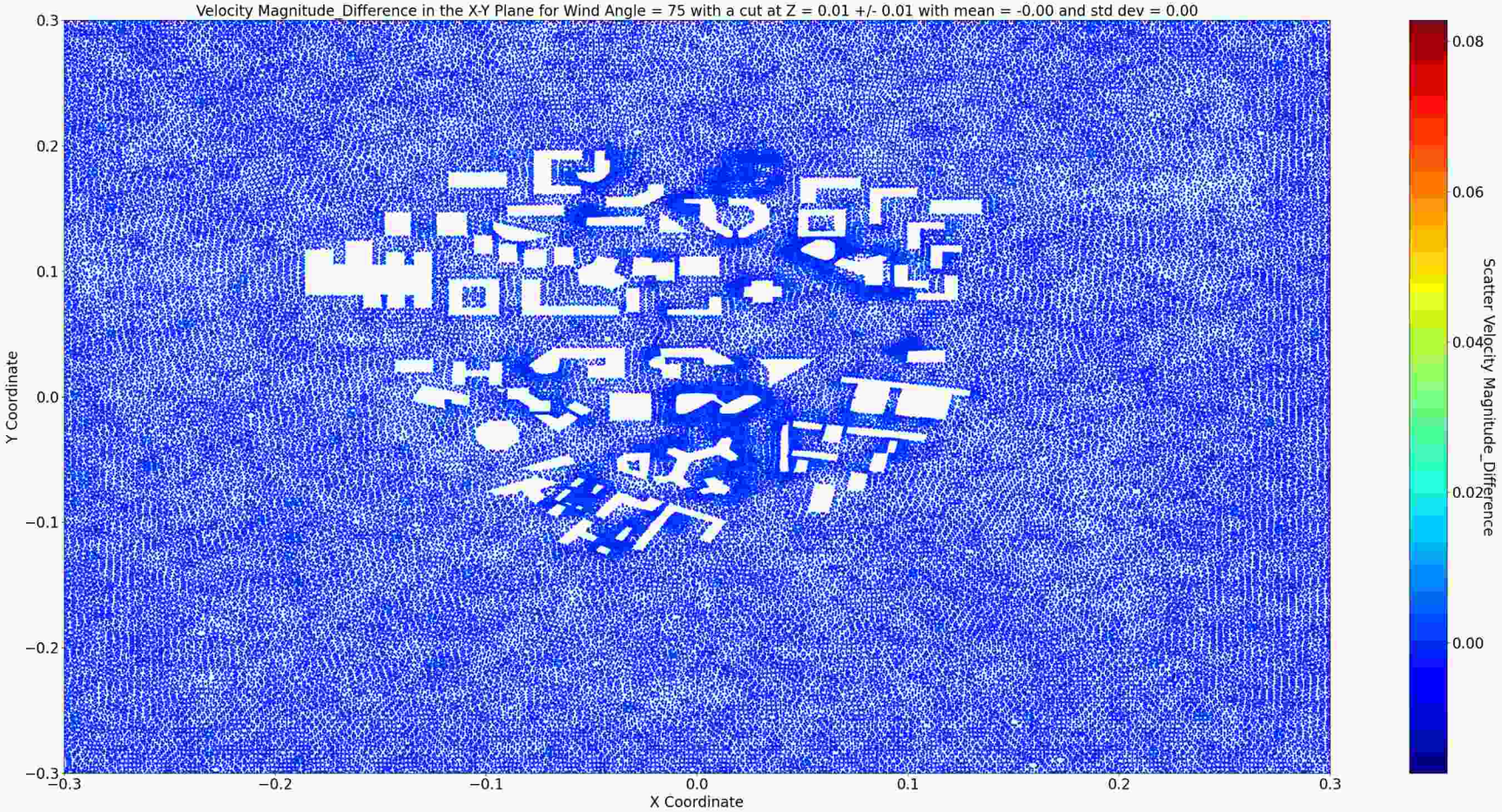

Velocity Magnitude_Difference in the X-Y Plane for Wind Angle = 0 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
Scatter Velocity Magnitude_Difference
0.1
0.0
−0.1
−0.2
−0.3
−0.4
−0.5

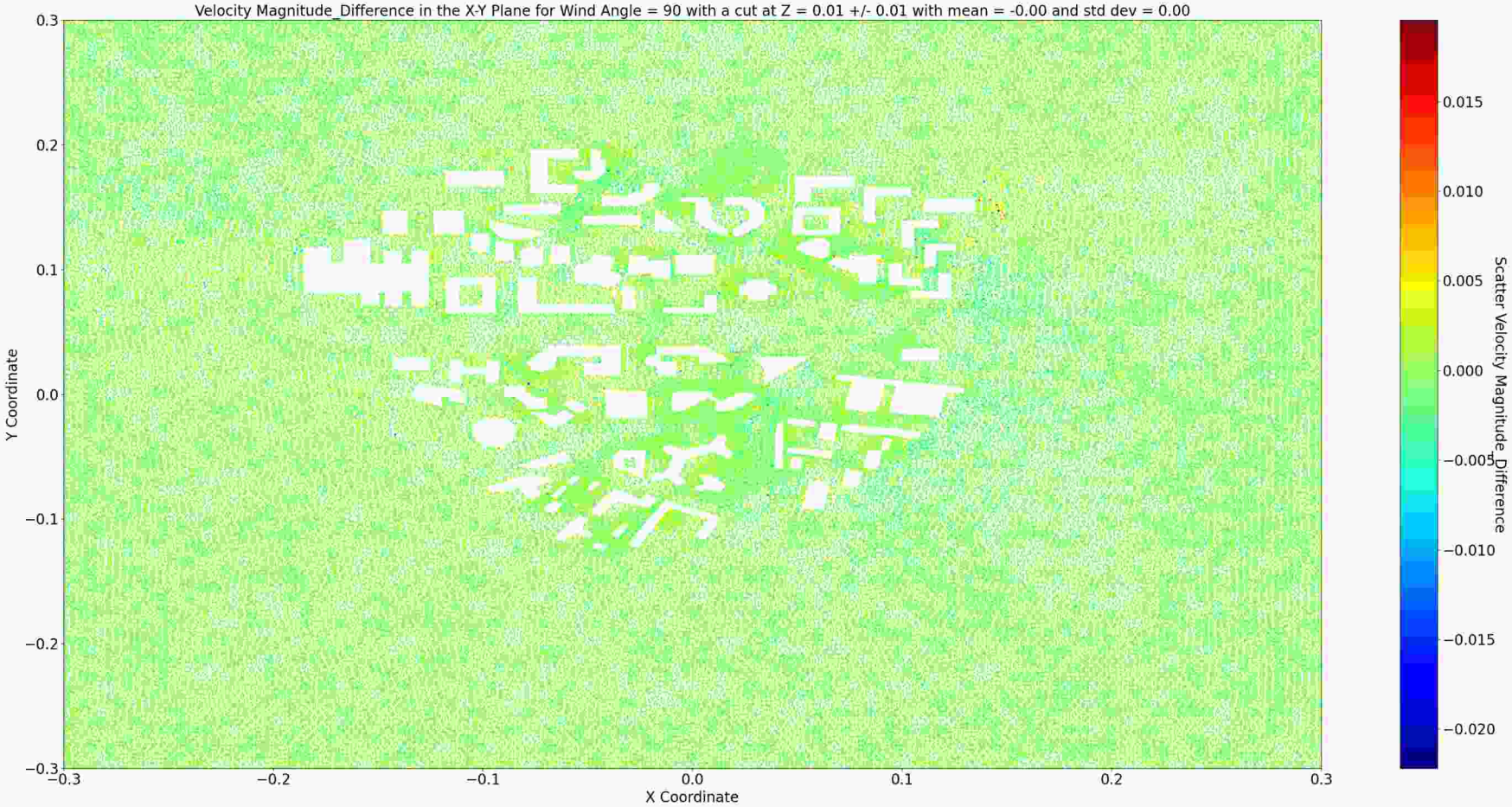

Velocity Magnitude_Difference in the X-Y Plane for Wind Angle = 15 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity_Magnitude_Difference
0.00
−0.05
−0.10
−0.15
−0.20
−0.25
−0.30

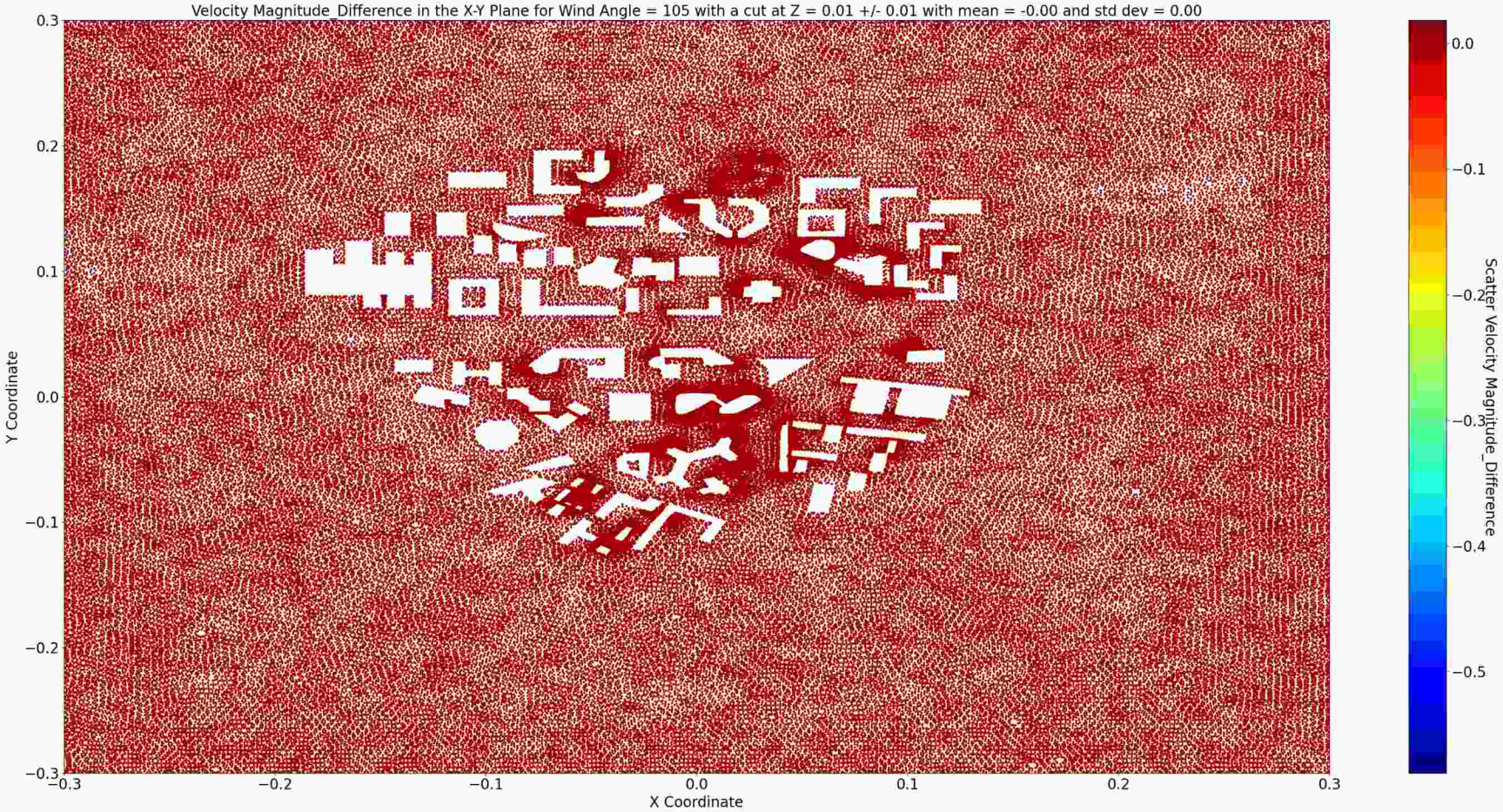

Velocity Magnitude_Difference in the X-Y Plane for Wind Angle = 30 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Magnitude_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6

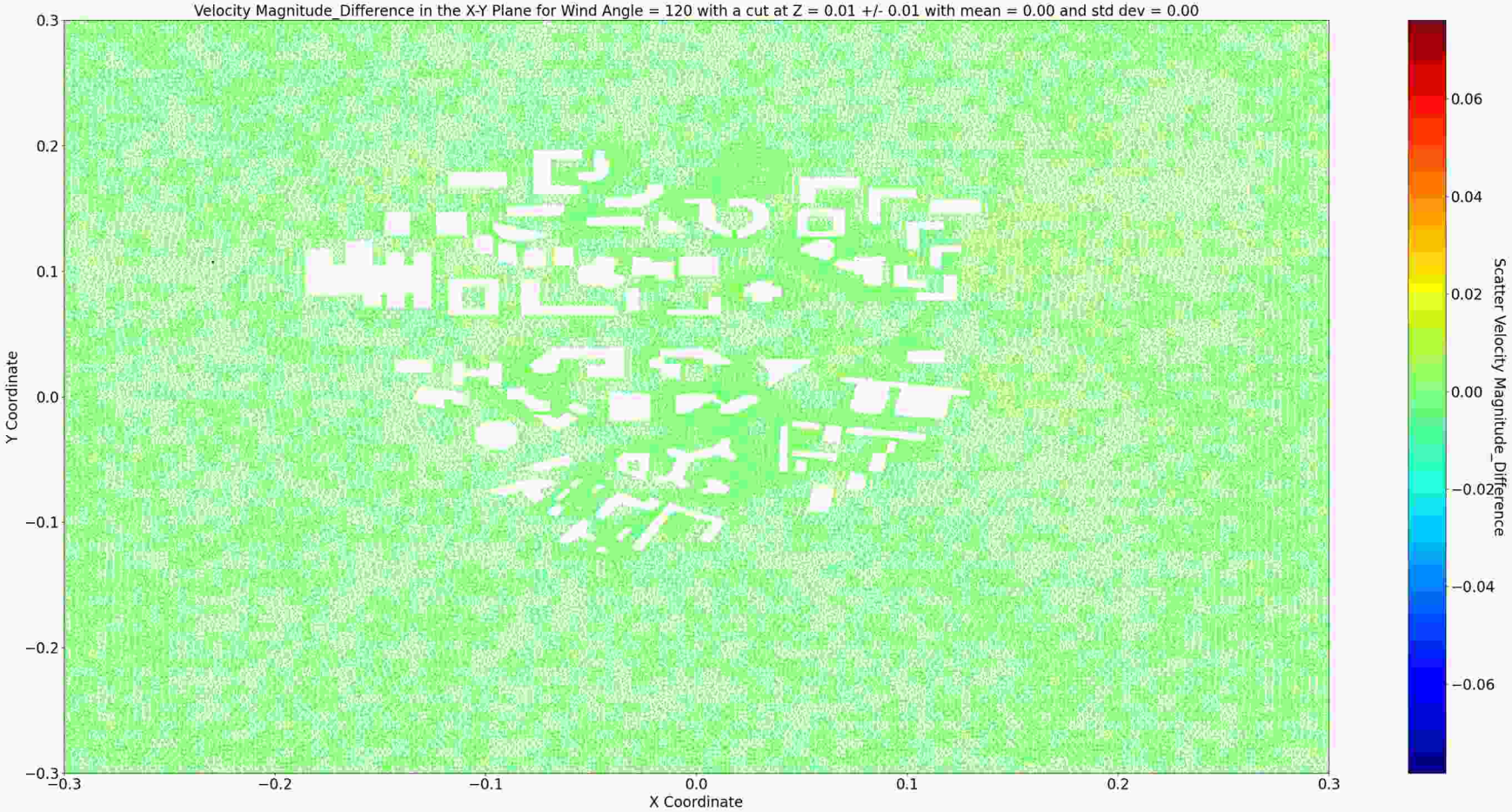

Velocity Magnitude_Difference in the X-Y Plane for Wind Angle = 45 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Magnitude_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3

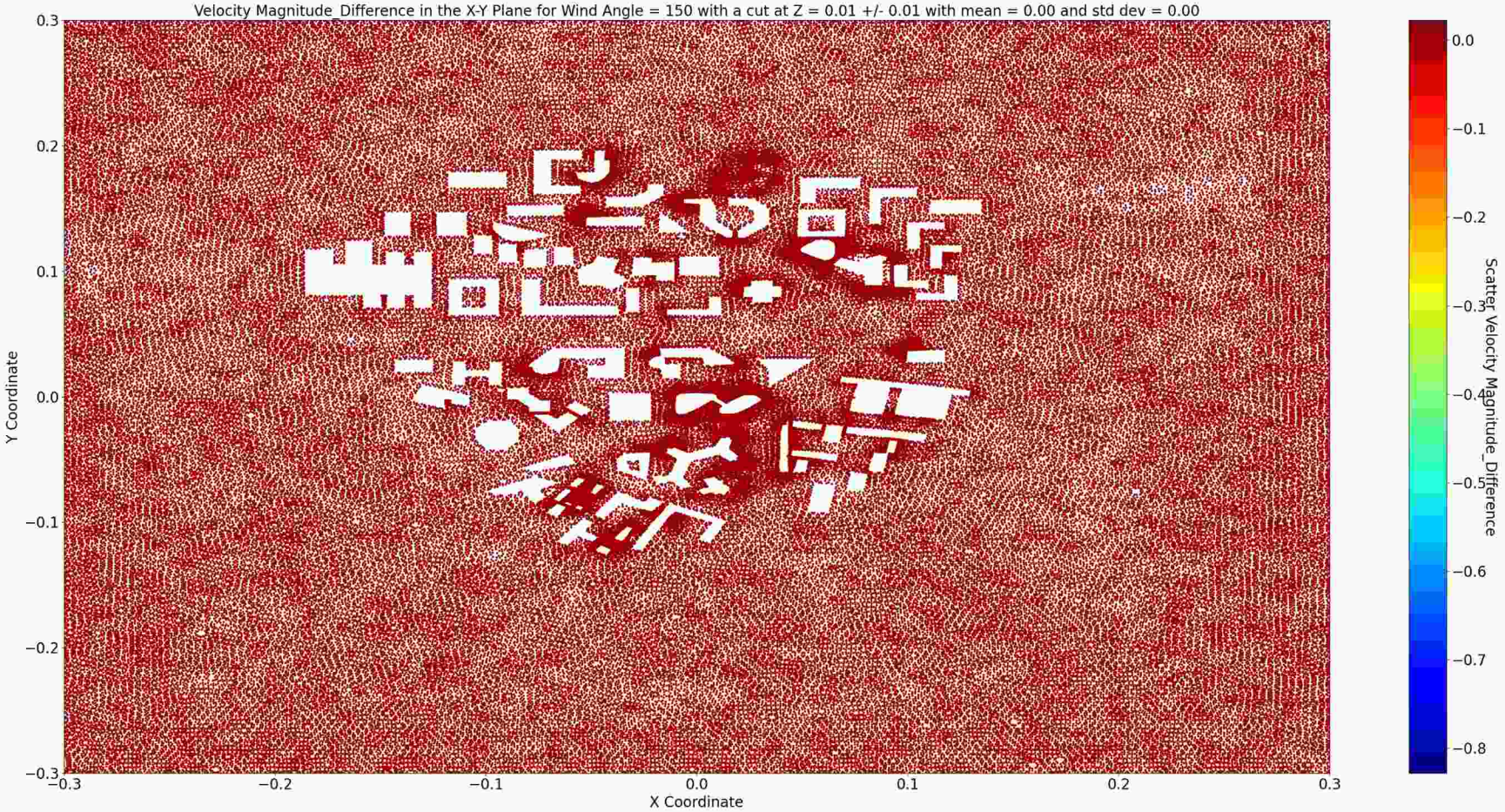

Velocity Magnitude_Difference in the X-Y Plane for Wind Angle = 60 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Magnitude_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.06
0.04
0.02
0.00

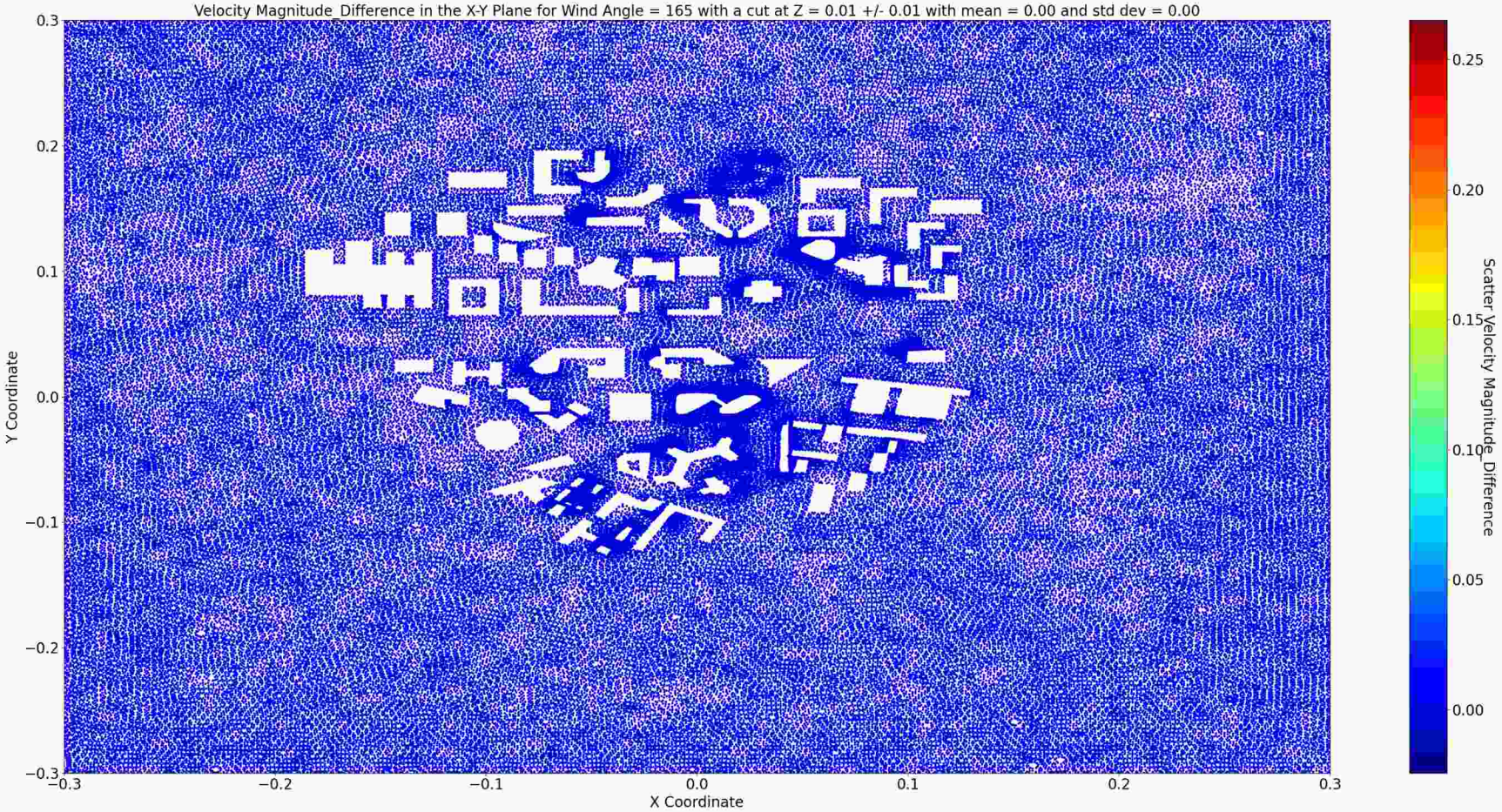

Velocity Magnitude_Difference in the X-Y Plane for Wind Angle = 75 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity Magnitude_Difference
0.08
0.06
0.04
0.02
0.00

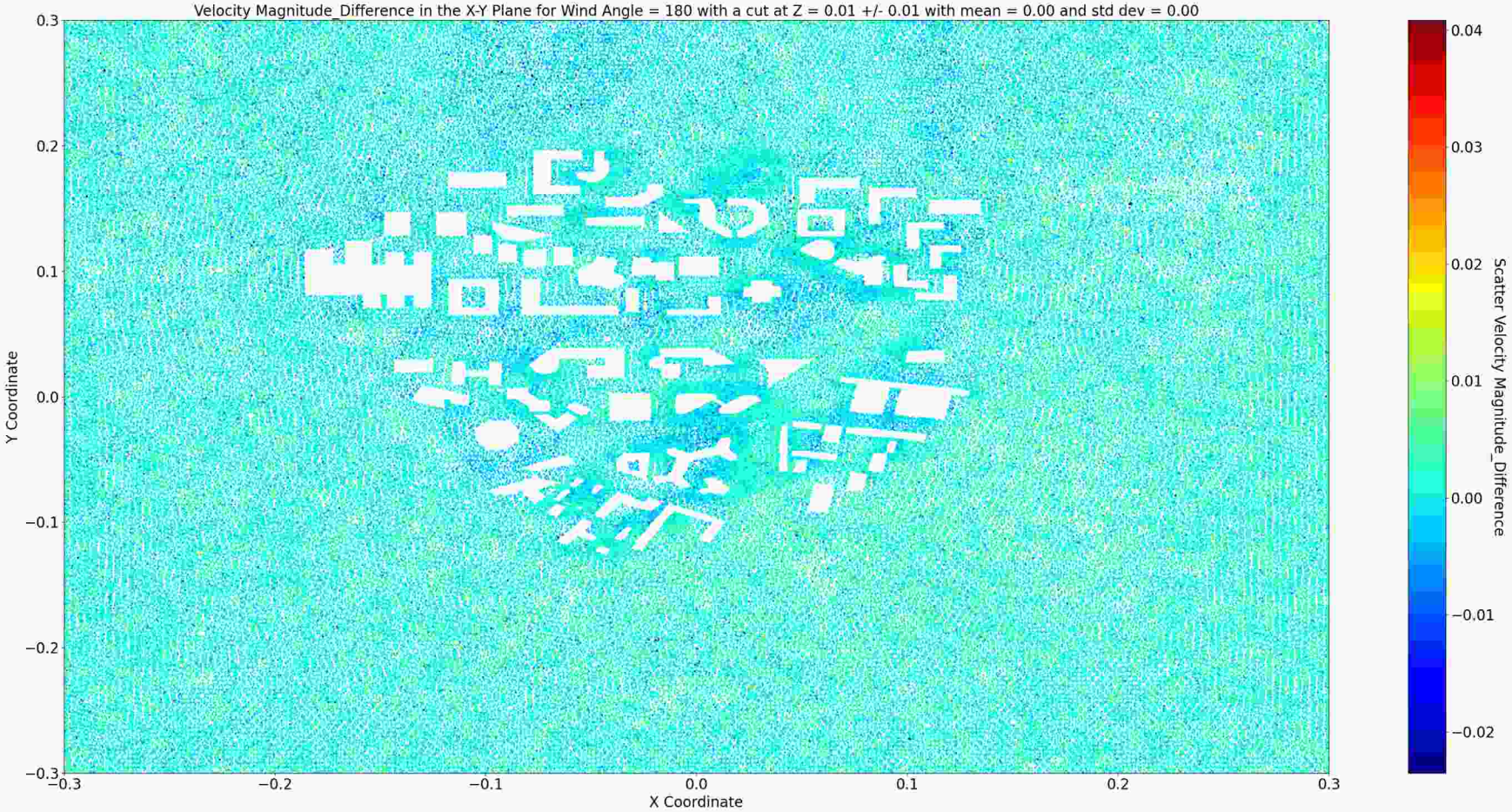

Velocity Magnitude_Difference in the X-Y Plane for Wind Angle = 90 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Magnitude_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015
−0.020

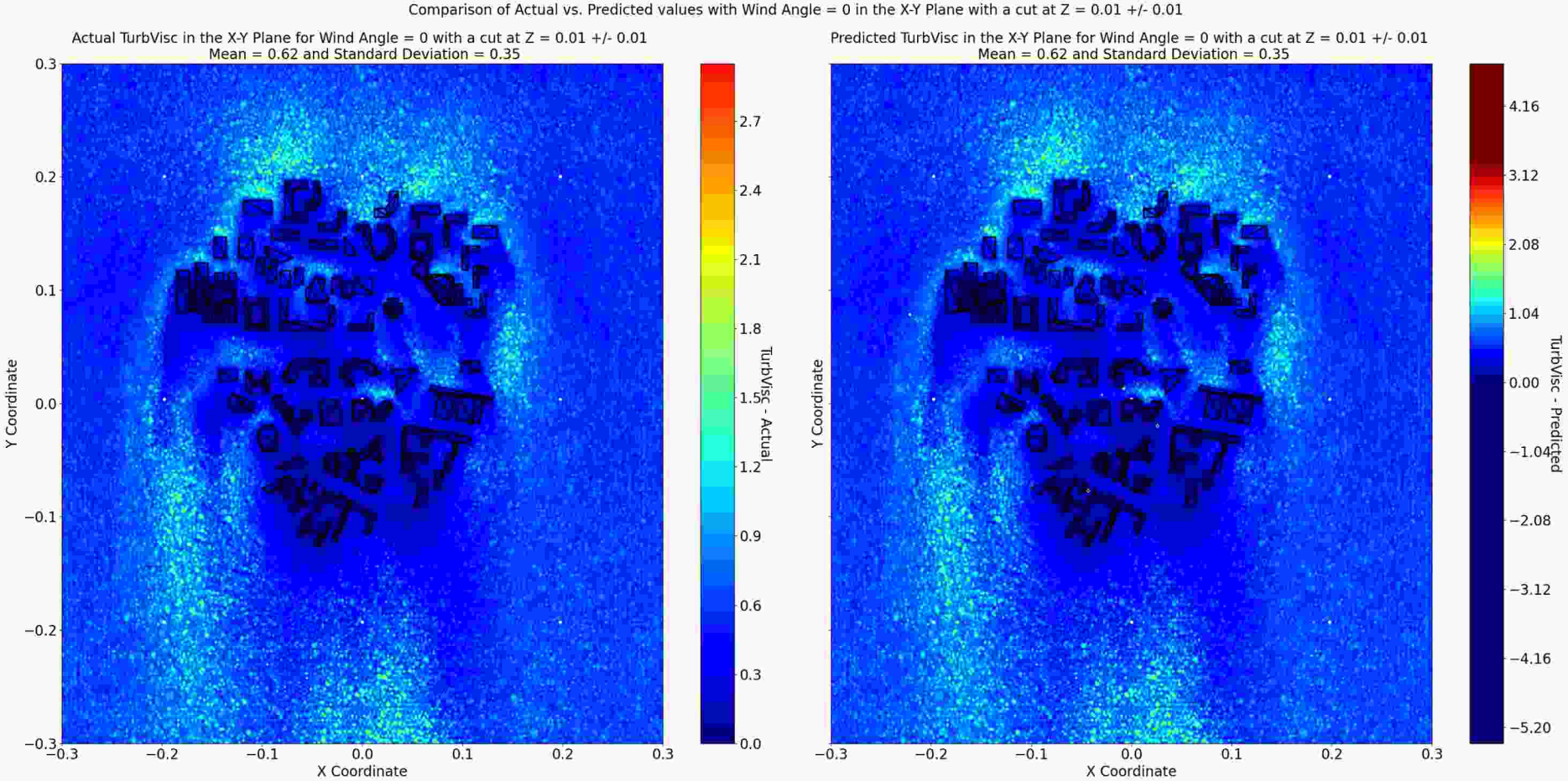

Velocity Magnitude_Difference in the X-Y Plane for Wind Angle = 105 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
Scatter Velocity Magnitude_Difference
0.0
−0.1
−0.2
−0.3
−0.4
−0.5

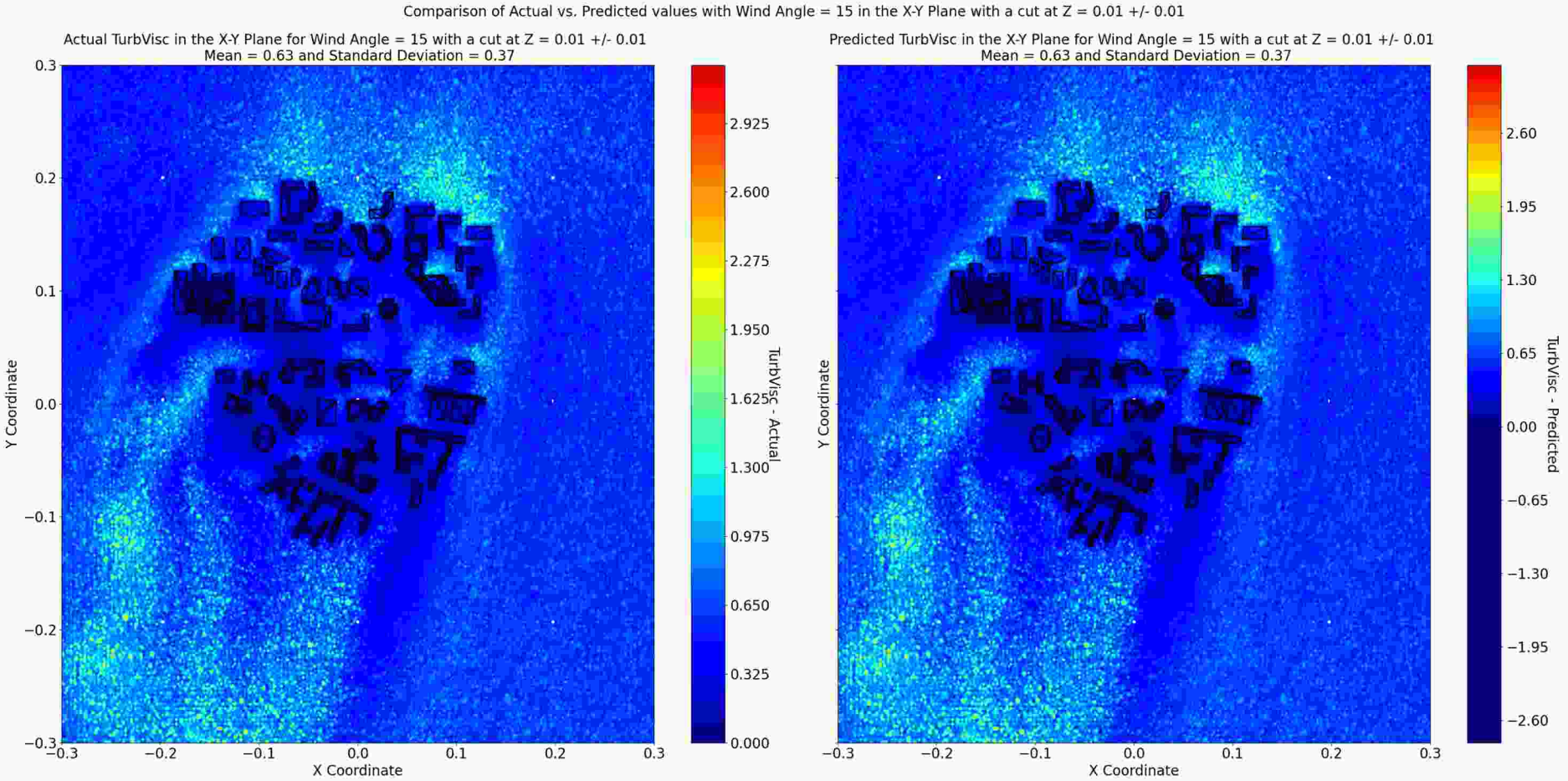

Velocity Magnitude_Difference in the X-Y Plane for Wind Angle = 120 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity Magnitude_Difference
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06

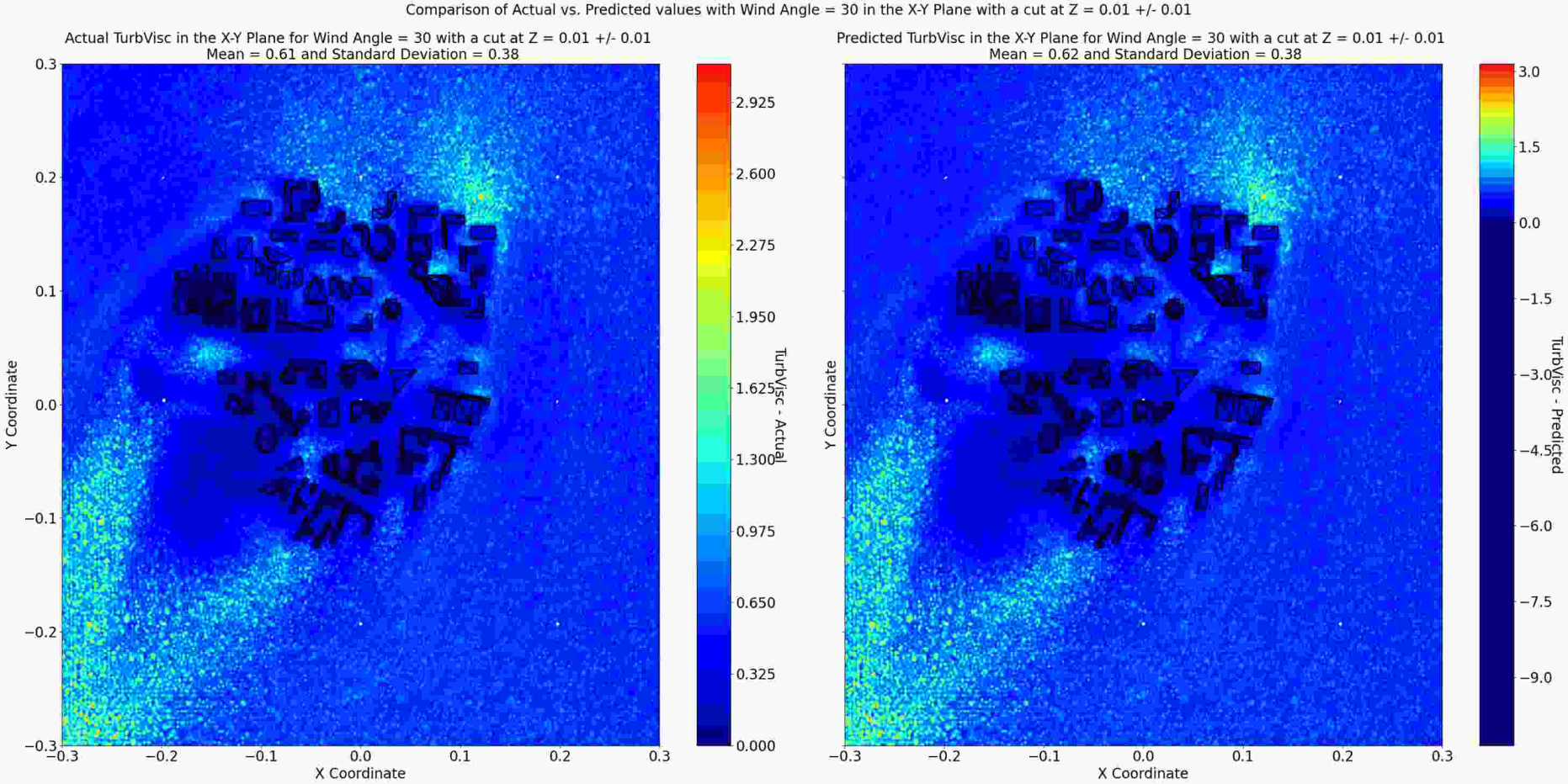

Velocity Magnitude_Difference in the X-Y Plane for Wind Angle = 150 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity Magnitude_Difference
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
−0.8


Velocity Magnitude_Difference in the X-Y Plane for Wind Angle = 165 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Magnitude_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.25
0.20
0.15
0.10
0.05
0.00

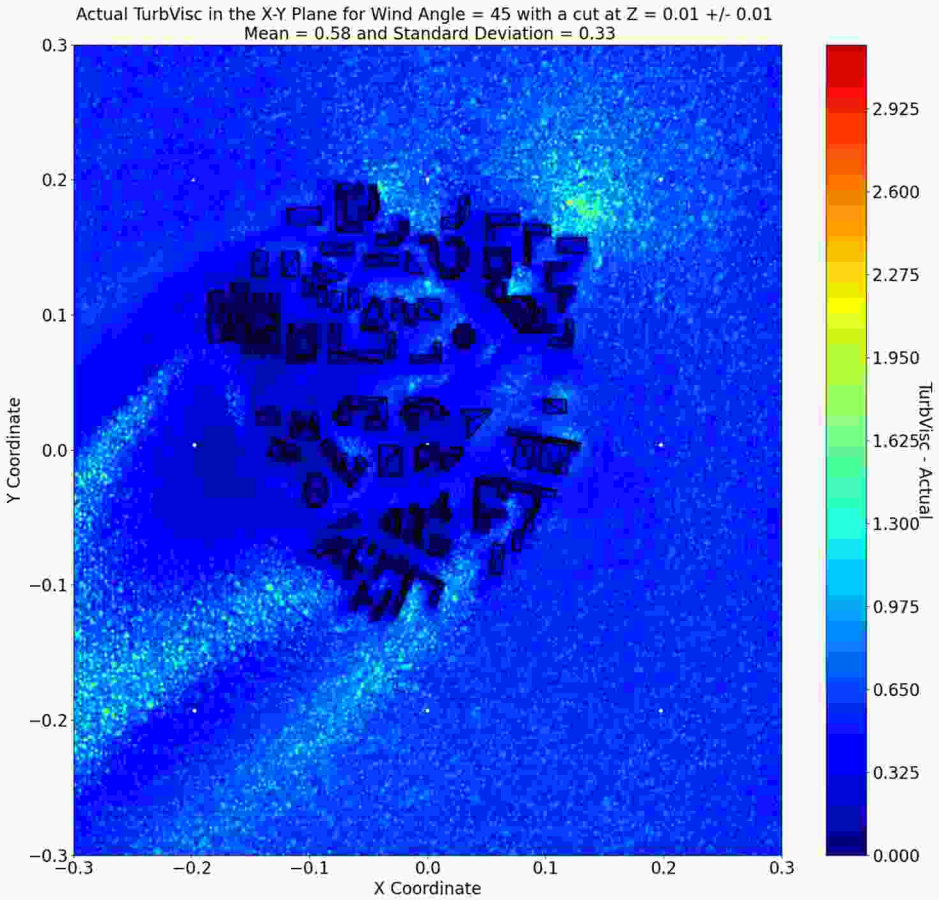

Velocity Magnitude_Difference in the X-Y Plane for Wind Angle = 180 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Magnitude_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02

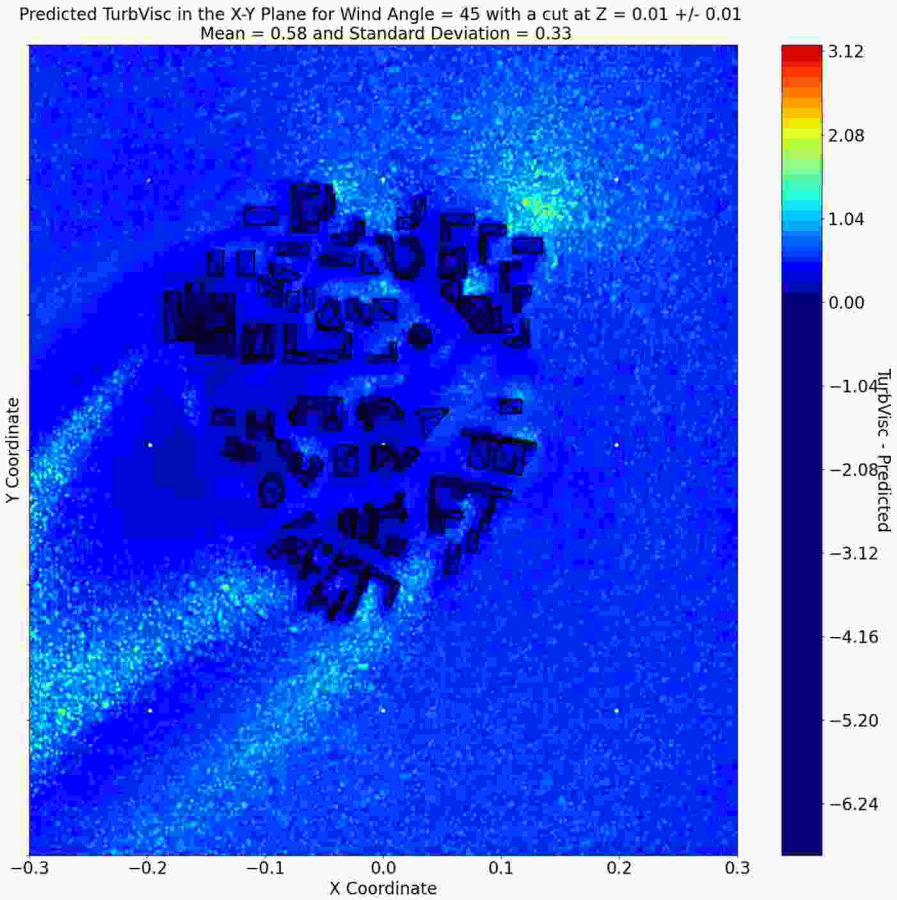

Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual TurbVisc in the X-Y Plane for Wind Angle = 0 with a cut at Z = 0.01 +/- 0.01
Mean = 0.62 and Standard Deviation = 0.35
Predicted TurbVisc in the X-Y Plane for Wind Angle = 0 with a cut at Z = 0.01 +/- 0.01
Mean = 0.62 and Standard Deviation = 0.35
Y Coordinate
X Coordinate
TurbVisc - Actual
TurbVisc - Predicted
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
2.7
2.4
2.1
1.8
1.5
1.2
0.9
0.6
0.3
0.0
4.16
3.12
2.08
1.04
0.00
−1.04
−2.08
−3.12
−4.16
−5.20

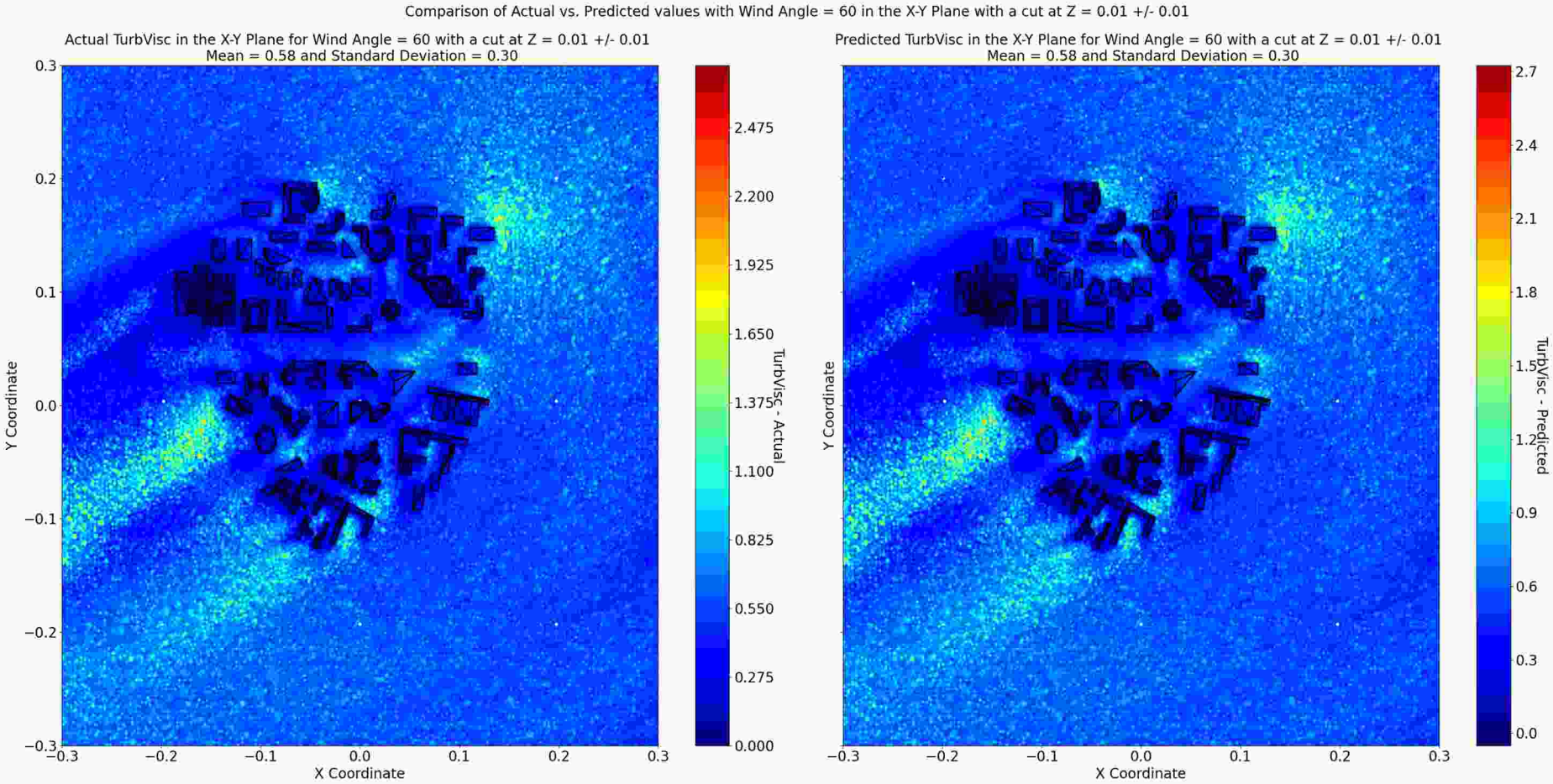

Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual TurbVisc in the X-Y Plane for Wind Angle = 15 with a cut at Z = 0.01 +/- 0.01
Mean = 0.63 and Standard Deviation = 0.37
Predicted TurbVisc in the X-Y Plane for Wind Angle = 15 with a cut at Z = 0.01 +/- 0.01
Mean = 0.63 and Standard Deviation = 0.37
Y Coordinate
X Coordinate
TurbVisc - Actual
TurbVisc - Predicted
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
2.925
2.600
2.275
1.950
1.625
1.300
0.975
0.650
0.325
0.000
2.60
1.95
1.30
0.65
0.00
−0.65
−1.30
−1.95
−2.60

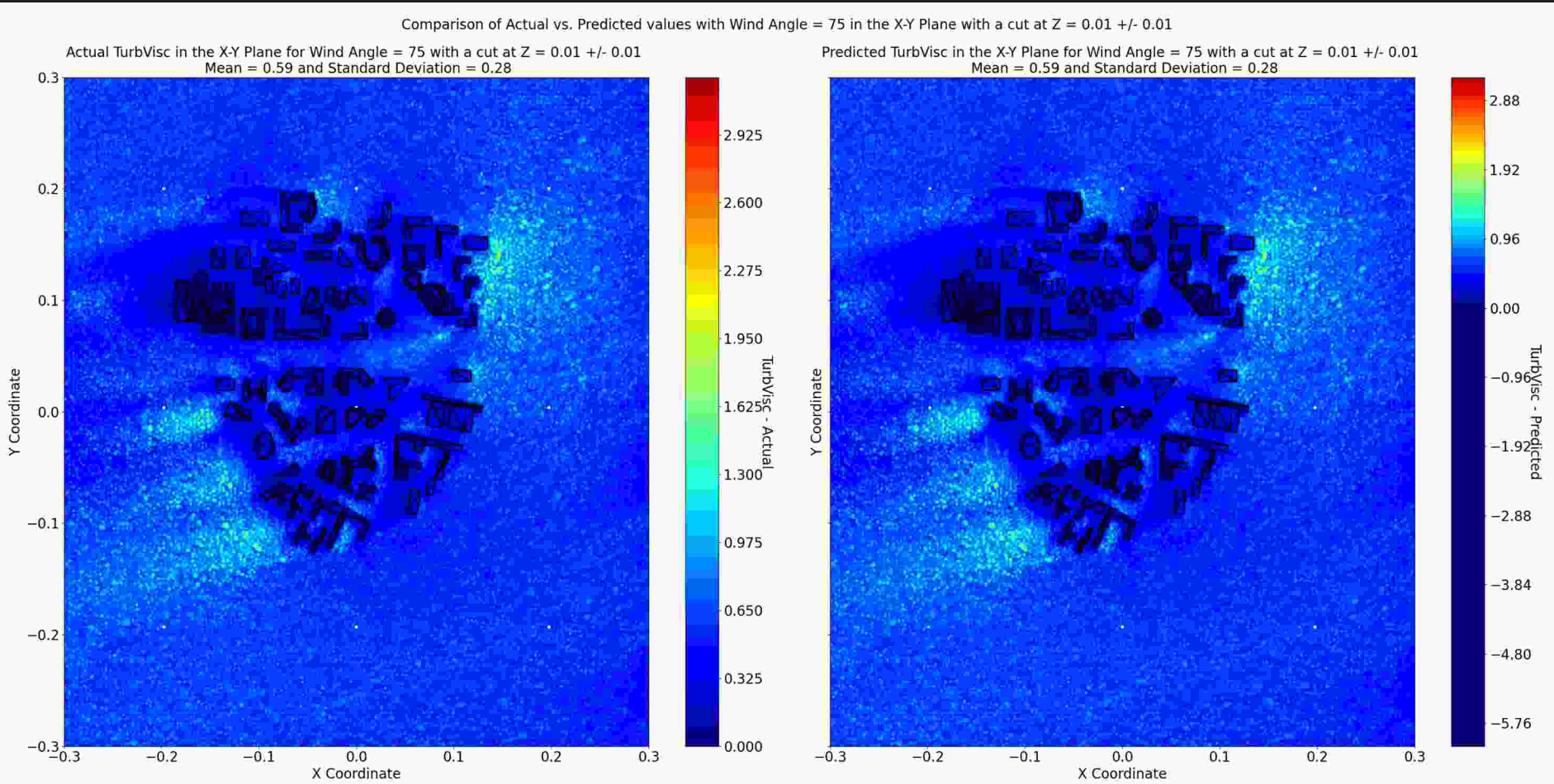

Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual TurbVisc in the X-Y Plane for Wind Angle = 30 with a cut at Z = 0.01 +/- 0.01
Mean = 0.61 and Standard Deviation = 0.38
Predicted TurbVisc in the X-Y Plane for Wind Angle = 30 with a cut at Z = 0.01 +/- 0.01
Mean = 0.62 and Standard Deviation = 0.38
Y Coordinate
X Coordinate
TurbVisc - Actual
TurbVisc - Predicted
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
2.925
2.600
2.275
1.950
1.625
1.300
0.975
0.650
0.325
0.000
3.0
1.5
0.0
−1.5
−3.0
−4.5
−6.0
−7.5
−9.0

Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

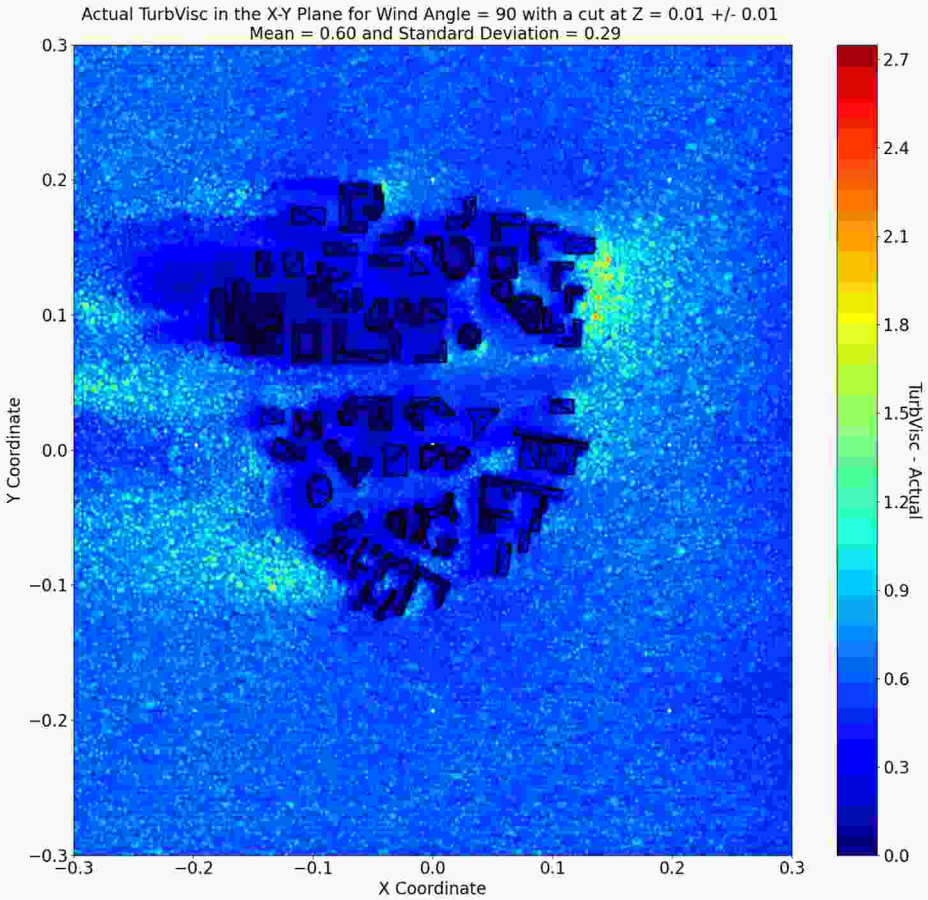


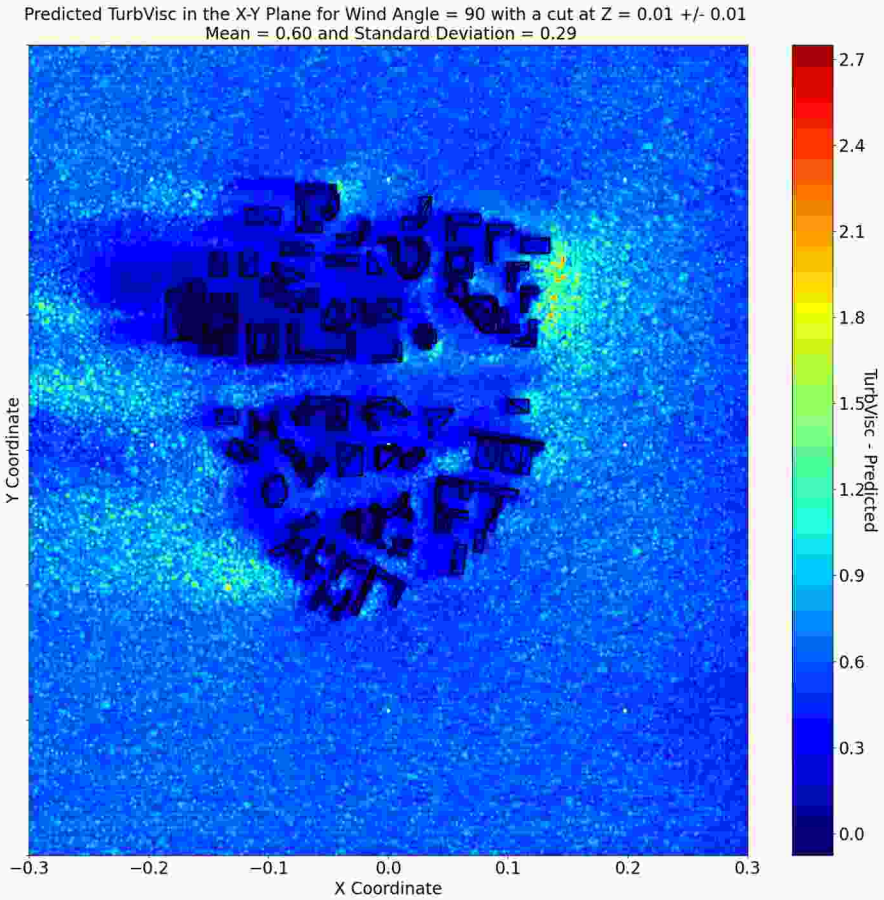



Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual TurbVisc in the X-Y Plane for Wind Angle = 60 with a cut at Z = 0.01 +/- 0.01
Mean = 0.58 and Standard Deviation = 0.30
Predicted TurbVisc in the X-Y Plane for Wind Angle = 60 with a cut at Z = 0.01 +/- 0.01
Mean = 0.58 and Standard Deviation = 0.30
Y Coordinate
X Coordinate
TurbVisc - Actual
TurbVisc - Predicted
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
2.475
2.200
1.925
1.650
1.375
1.100
0.825
0.550
0.275
0.000
2.7
2.4
2.1
1.8
1.5
1.2
0.9
0.6
0.3
0.0

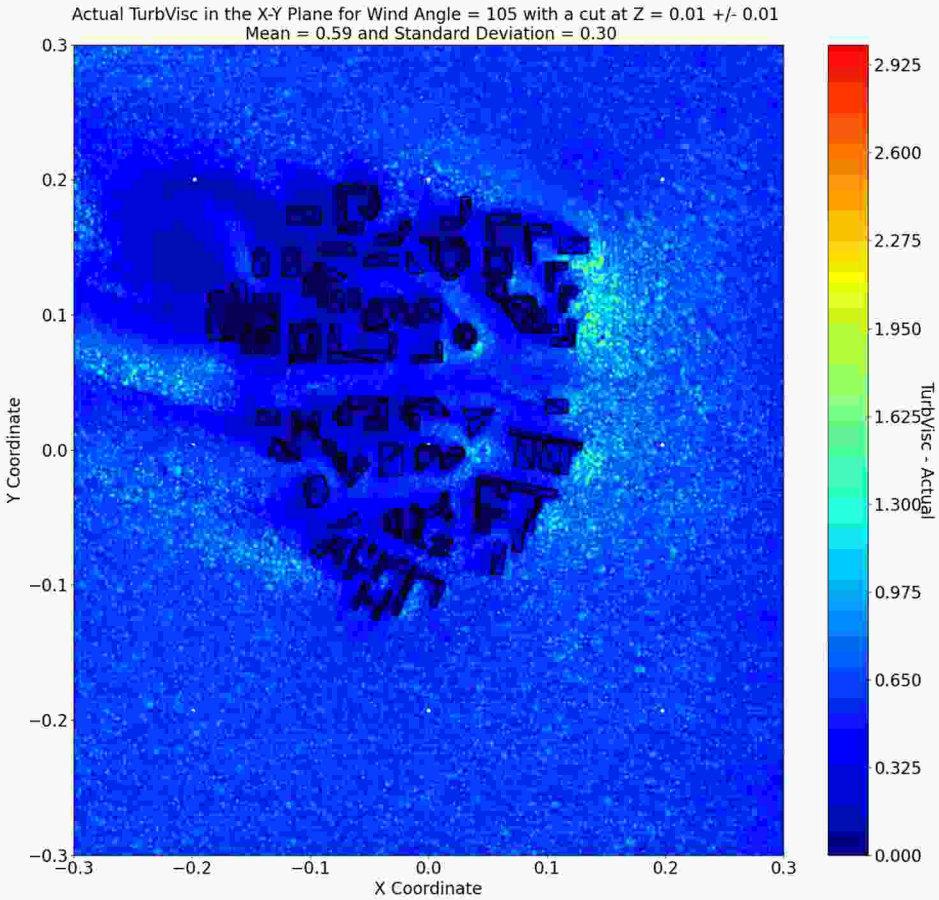

Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual TurbVisc in the X-Y Plane for Wind Angle = 75 with a cut at Z = 0.01 +/- 0.01
Mean = 0.59 and Standard Deviation = 0.28
Predicted TurbVisc in the X-Y Plane for Wind Angle = 75 with a cut at Z = 0.01 +/- 0.01
Mean = 0.59 and Standard Deviation = 0.28
Y Coordinate
X Coordinate
TurbVisc - Actual
TurbVisc - Predicted
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
2.925
2.600
2.275
1.950
1.625
1.300
0.975
0.650
0.325
0.000
2.88
1.92
0.96
0.00
−0.96
−1.92
−2.88
−3.84
−4.80
−5.76

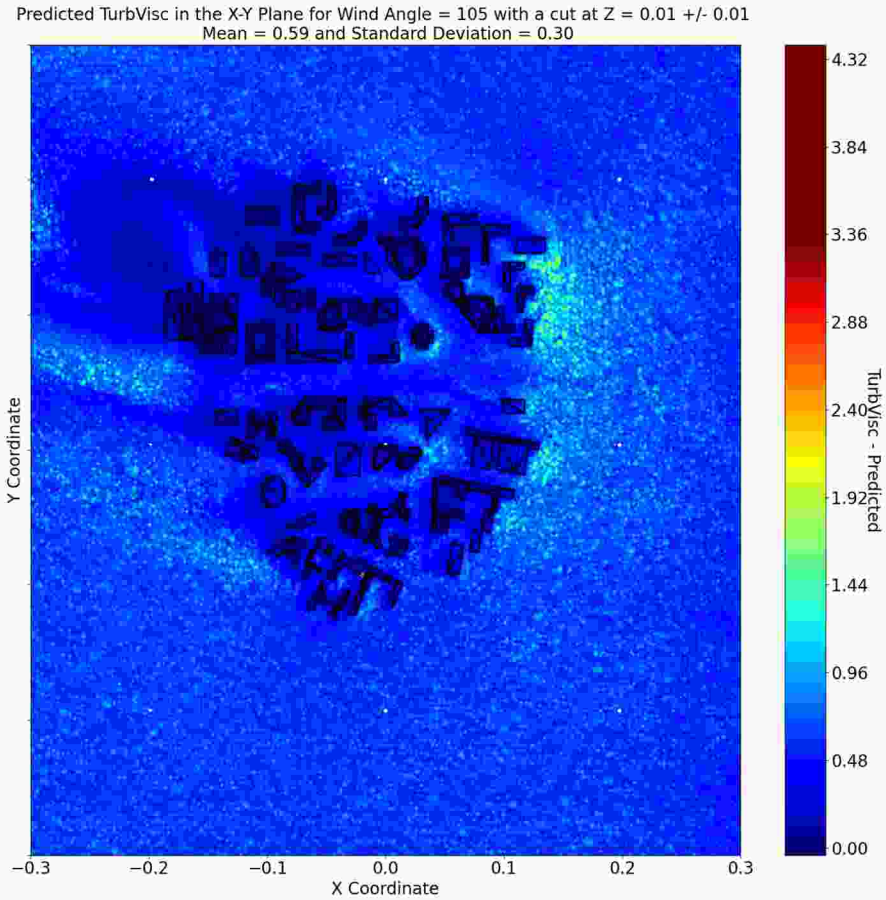
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

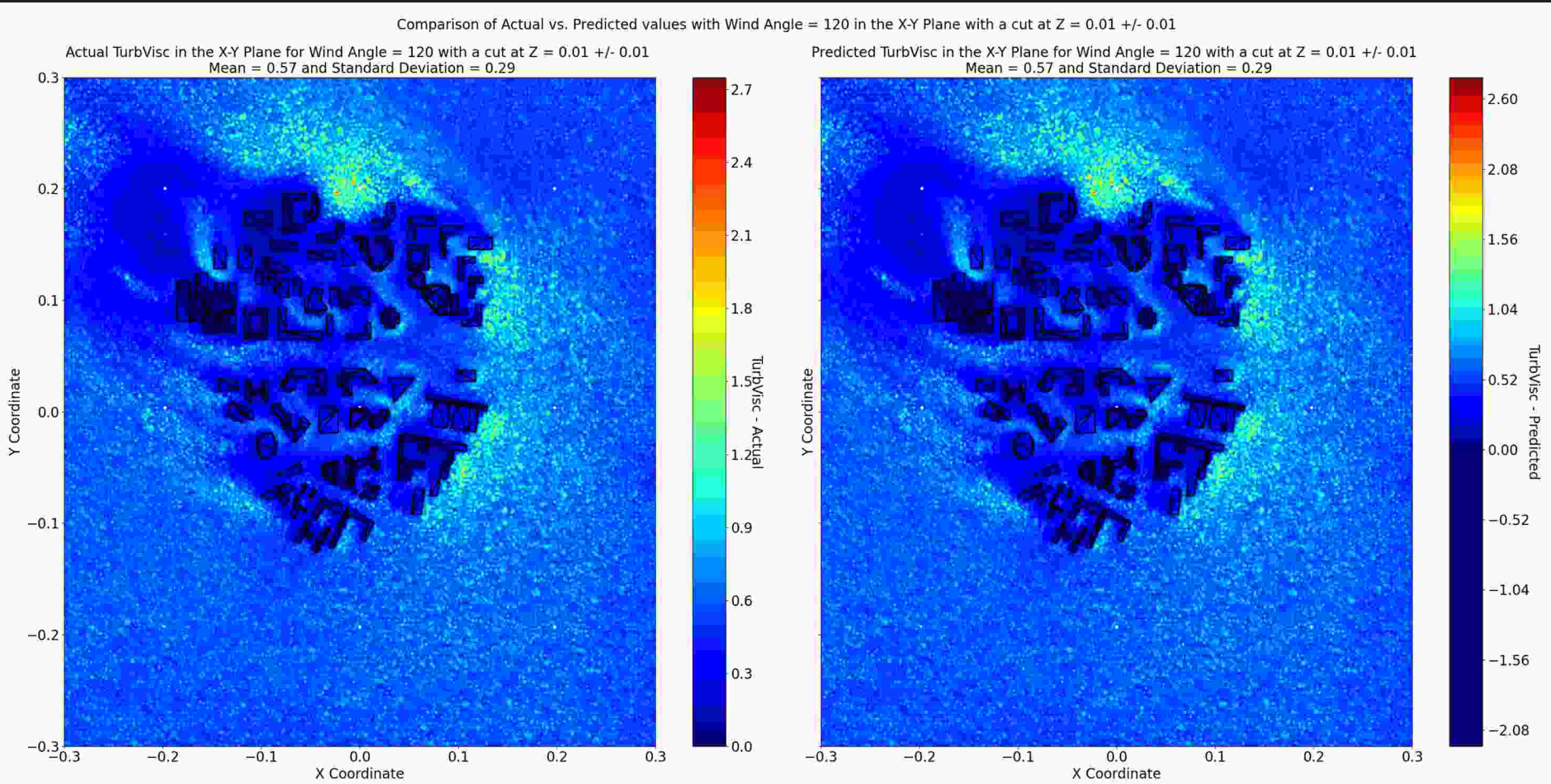


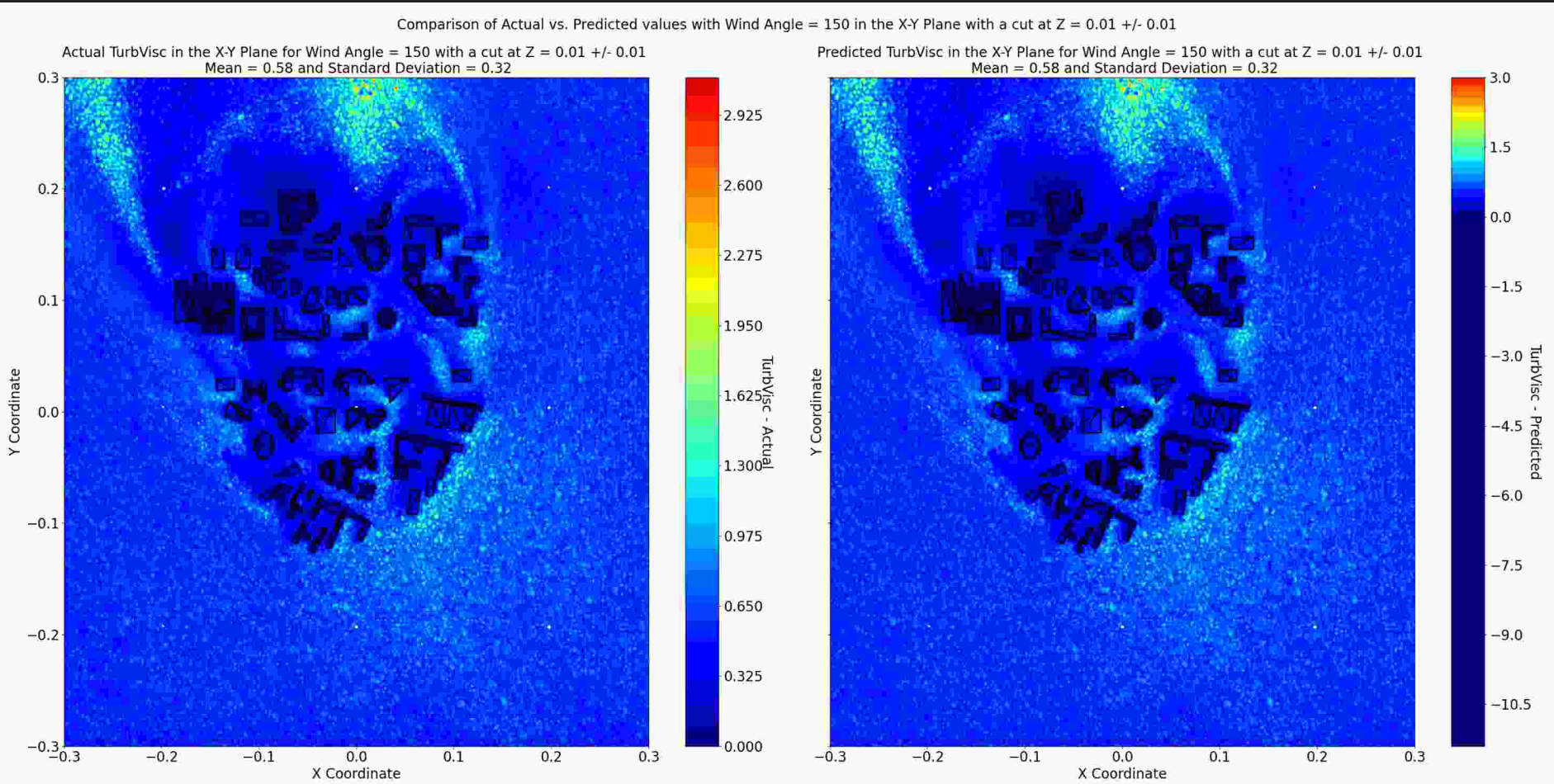


Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

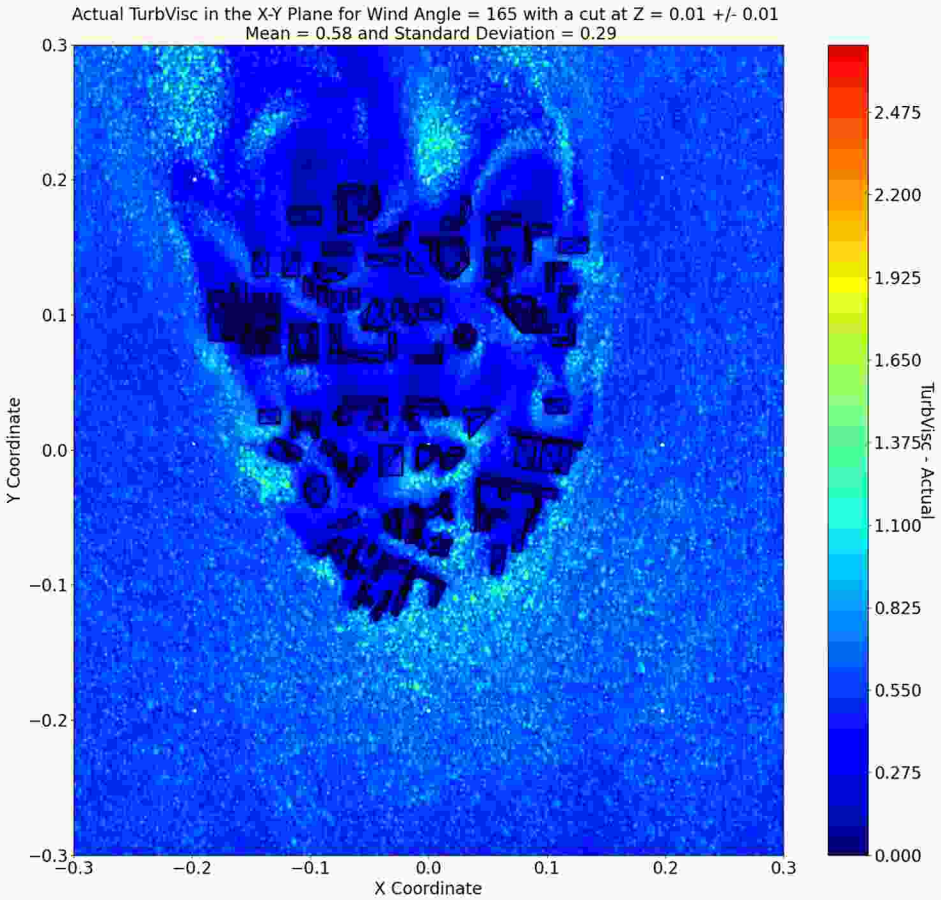


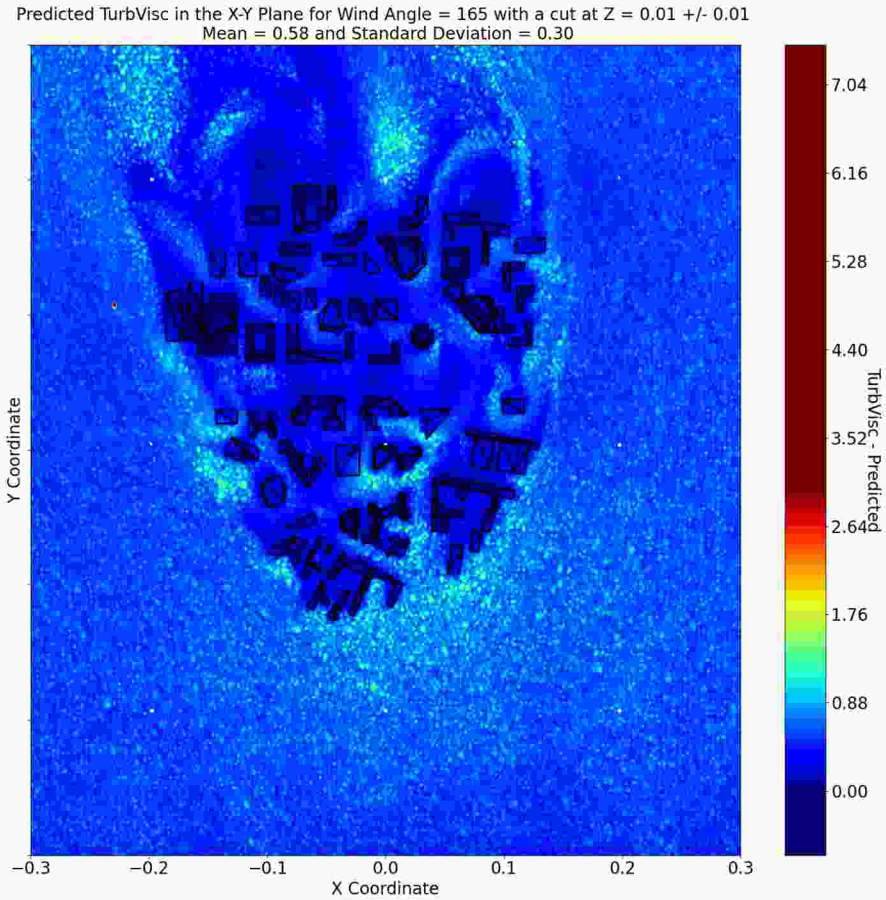



Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual TurbVisc in the X-Y Plane for Wind Angle = 120 with a cut at Z = 0.01 +/- 0.01
Mean = 0.57 and Standard Deviation = 0.29
Predicted TurbVisc in the X-Y Plane for Wind Angle = 120 with a cut at Z = 0.01 +/- 0.01
Mean = 0.57 and Standard Deviation = 0.29
Y Coordinate
X Coordinate
TurbVisc - Actual
TurbVisc - Predicted
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
2.7
2.4
2.1
1.8
1.5
1.2
0.9
0.6
0.3
0.0
2.60
2.08
1.56
1.04
0.52
0.00
−0.52
−1.04
−1.56
−2.08

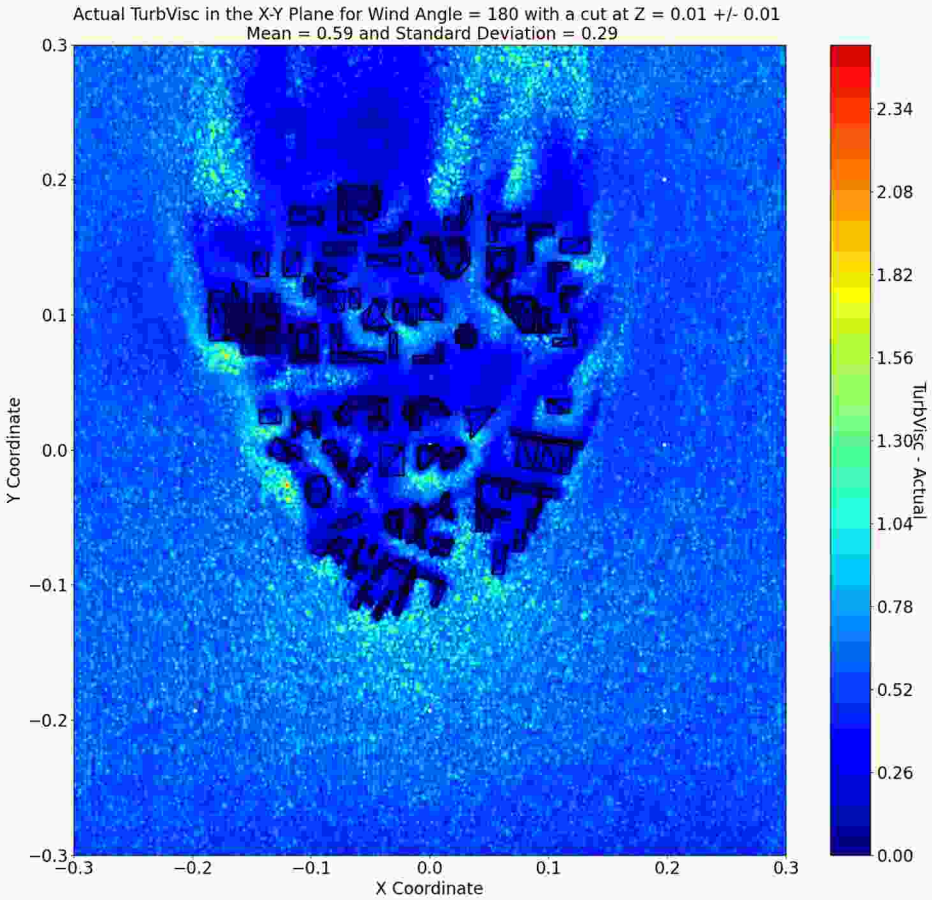

Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual TurbVisc in the X-Y Plane for Wind Angle = 150 with a cut at Z = 0.01 +/- 0.01
Mean = 0.58 and Standard Deviation = 0.32
Predicted TurbVisc in the X-Y Plane for Wind Angle = 150 with a cut at Z = 0.01 +/- 0.01
Mean = 0.58 and Standard Deviation = 0.32
Y Coordinate
X Coordinate
TurbVisc - Actual
TurbVisc - Predicted
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
2.925
2.600
2.275
1.950
1.625
1.300
0.975
0.650
0.325
0.000
3.0
1.5
0.0
−1.5
−3.0
−4.5
−6.0
−7.5
−9.0
−10.5

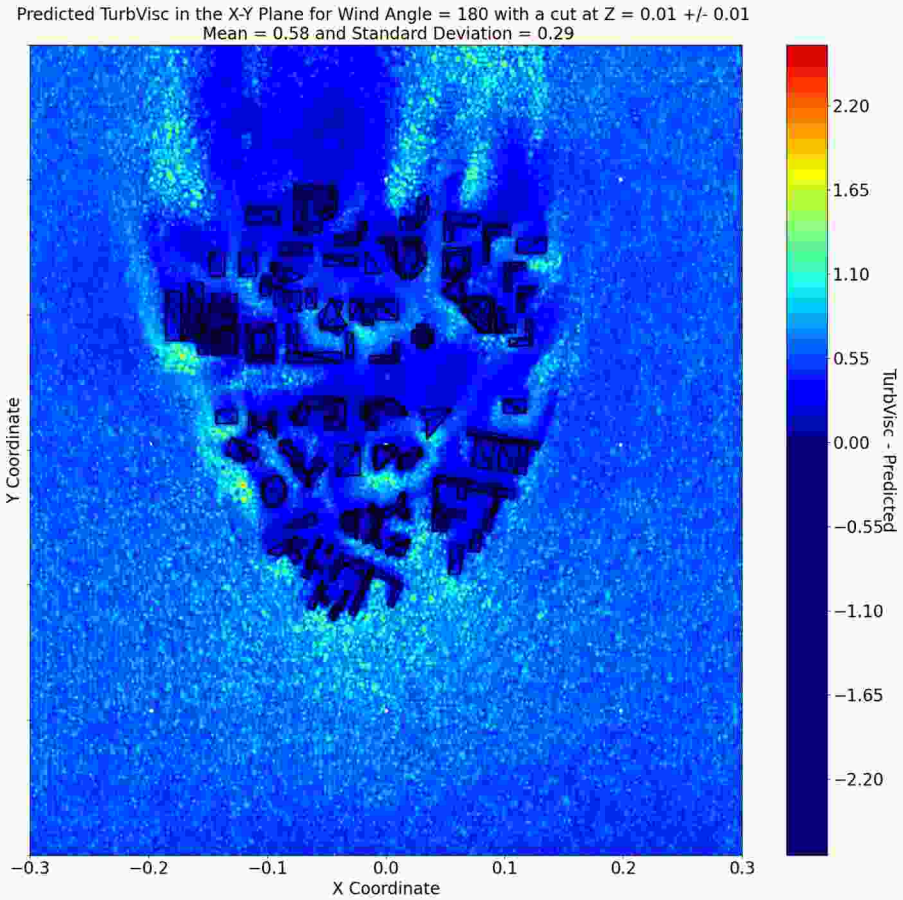
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

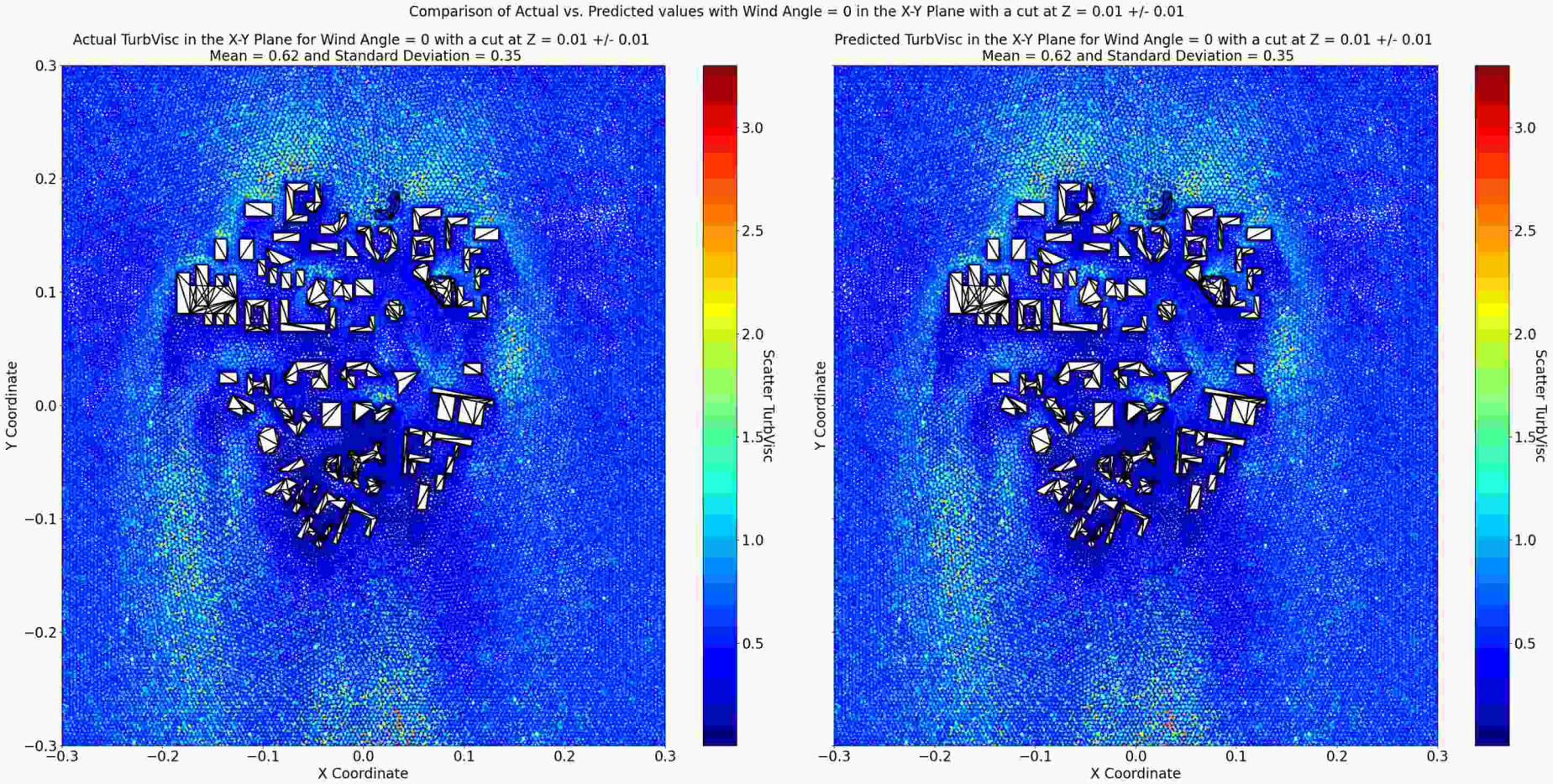


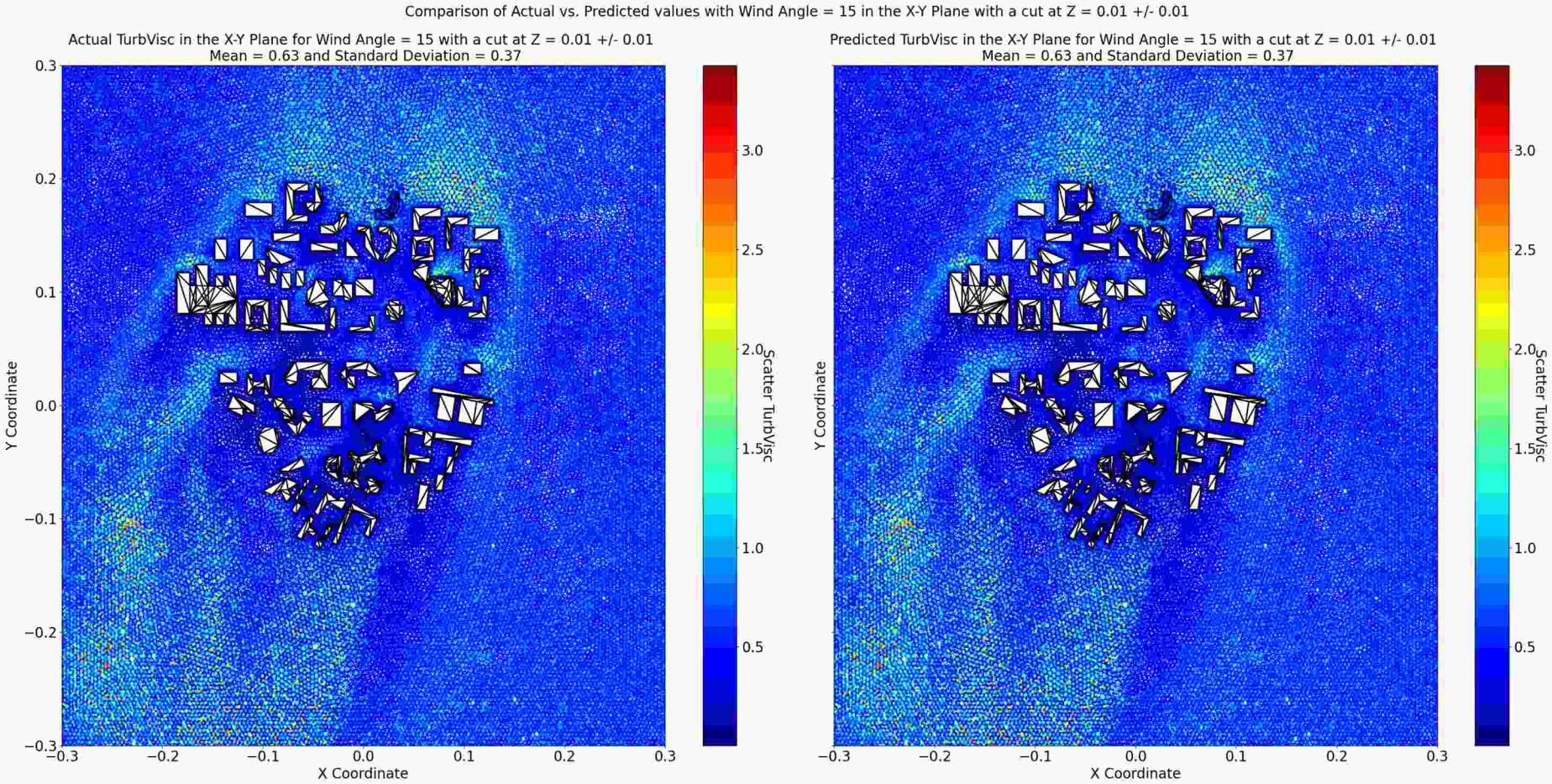


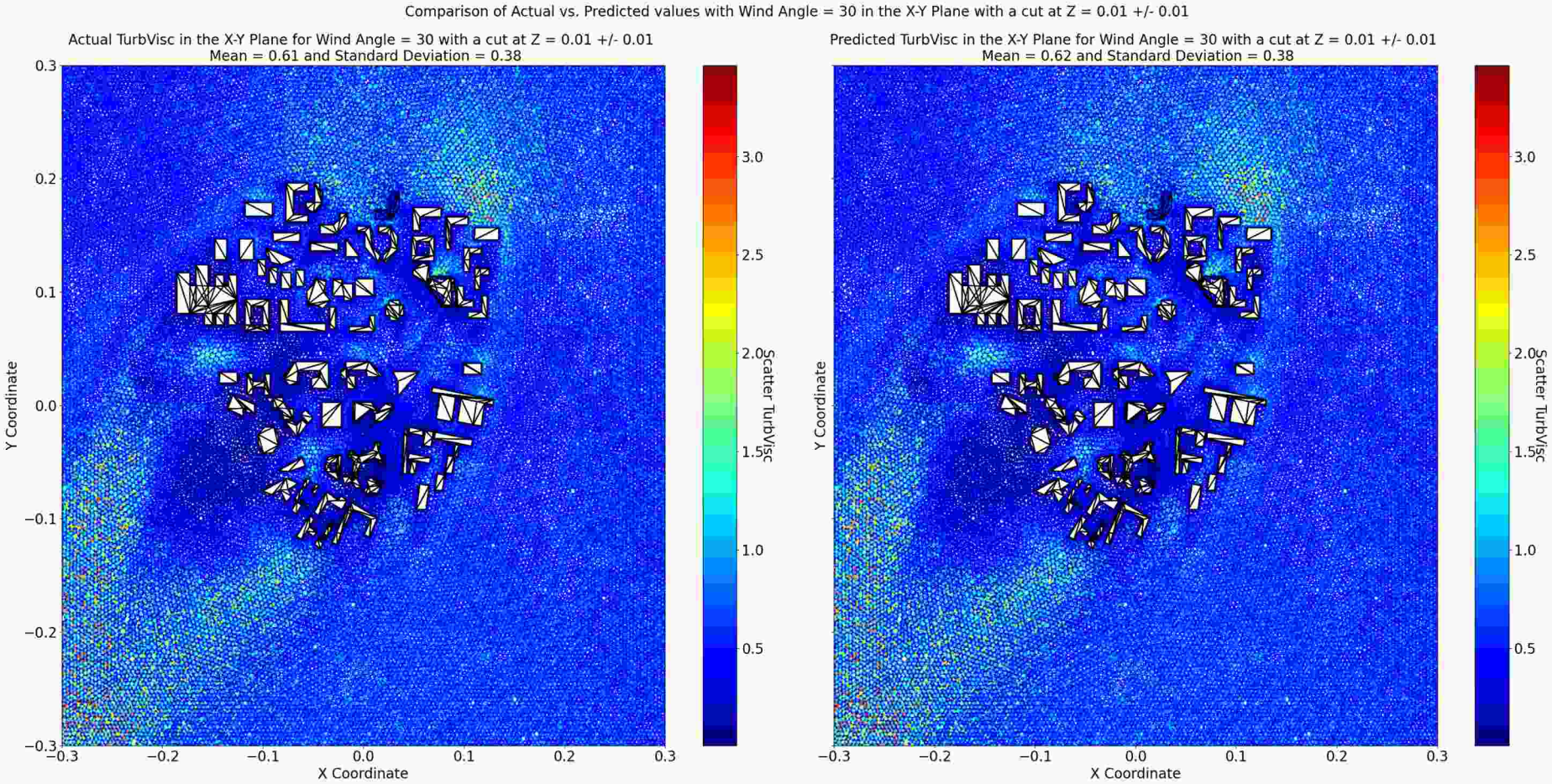
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



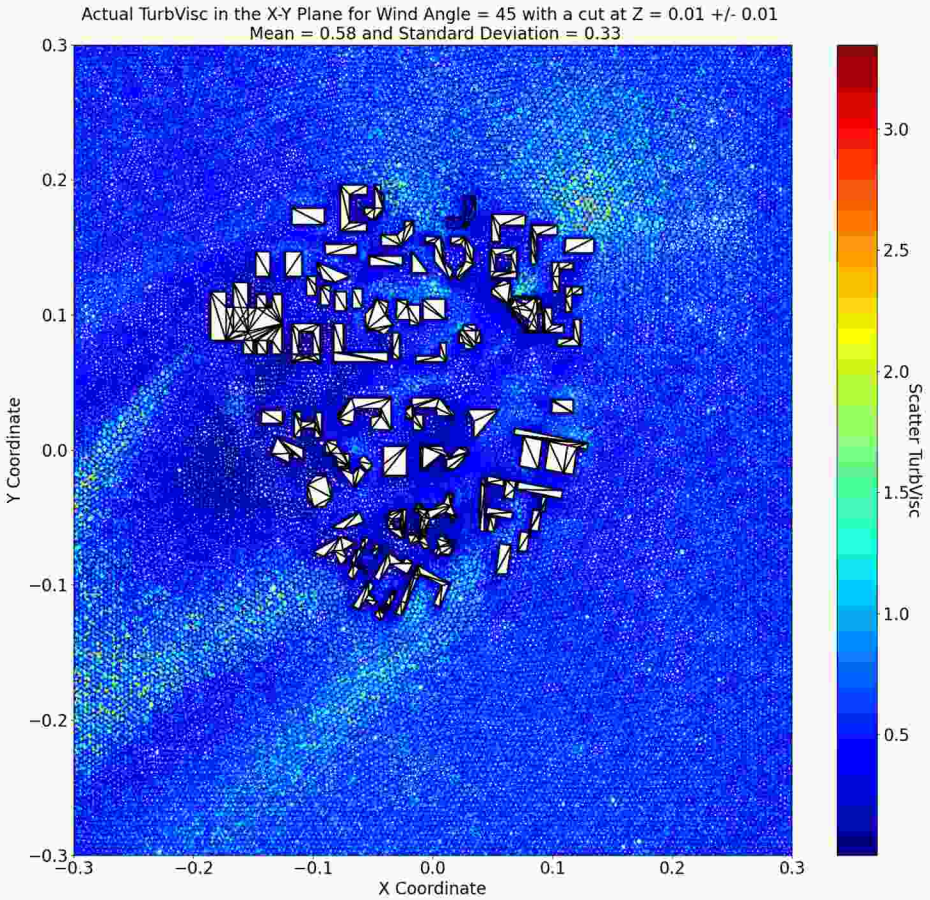


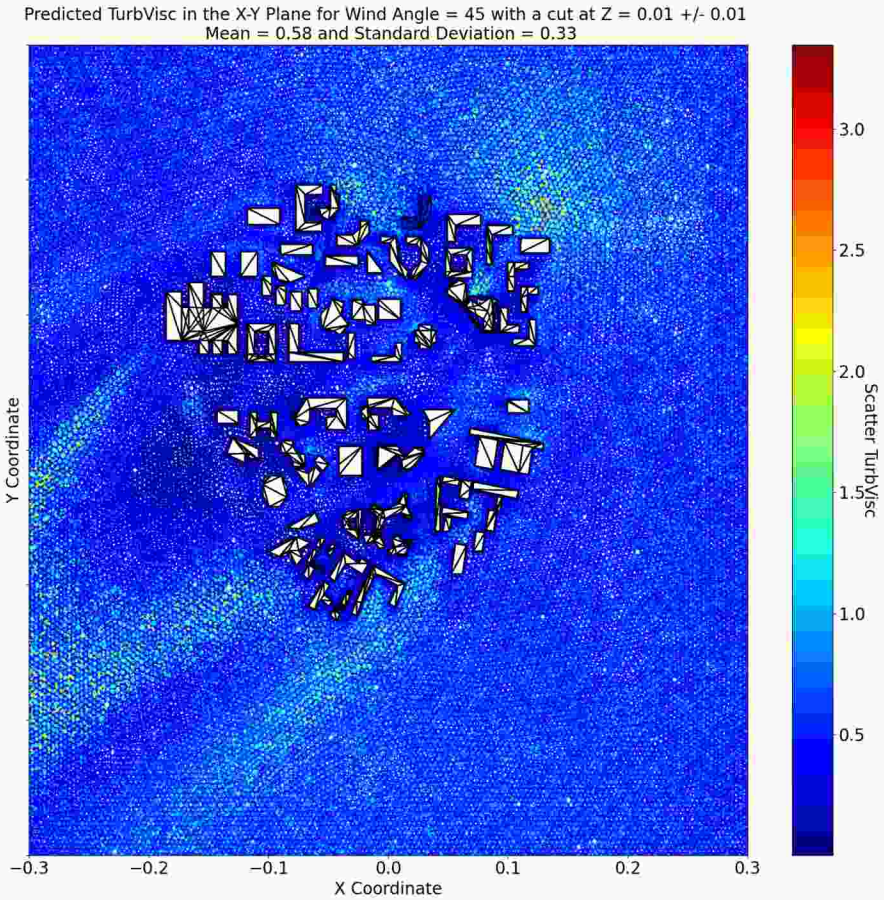

Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual TurbVisc in the X-Y Plane for Wind Angle = 0 with a cut at Z = 0.01 +/- 0.01
Mean = 0.62 and Standard Deviation = 0.35
Predicted TurbVisc in the X-Y Plane for Wind Angle = 0 with a cut at Z = 0.01 +/- 0.01
Mean = 0.62 and Standard Deviation = 0.35
Y Coordinate
X Coordinate
Scatter TurbVisc
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
3.0
2.5
2.0
1.5
1.0
0.5

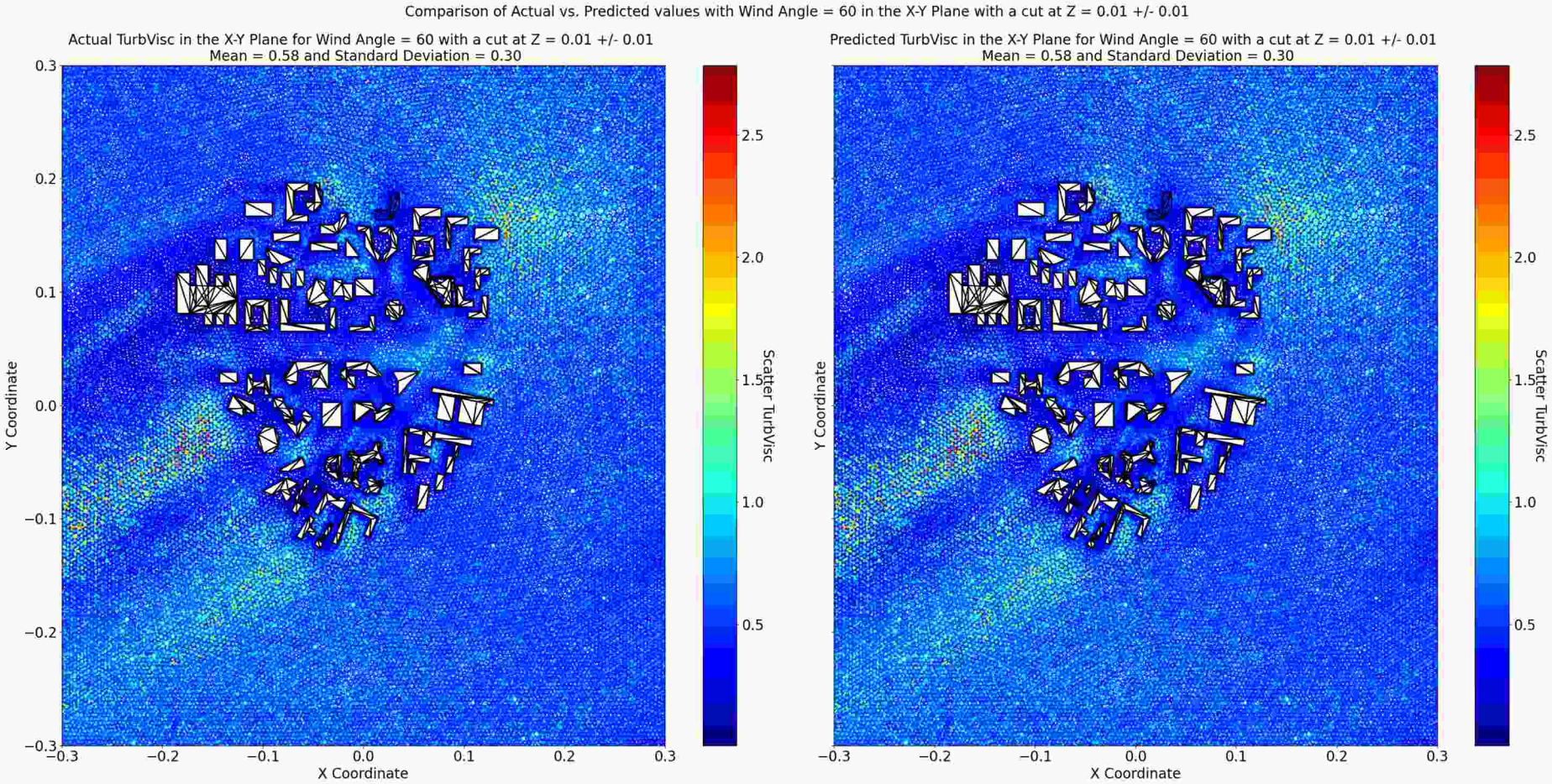

Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual TurbVisc in the X-Y Plane for Wind Angle = 15 with a cut at Z = 0.01 +/- 0.01
Mean = 0.63 and Standard Deviation = 0.37
Predicted TurbVisc in the X-Y Plane for Wind Angle = 15 with a cut at Z = 0.01 +/- 0.01
Mean = 0.63 and Standard Deviation = 0.37
Y Coordinate
X Coordinate
Scatter TurbVisc
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
3.0
2.5
2.0
1.5
1.0
0.5

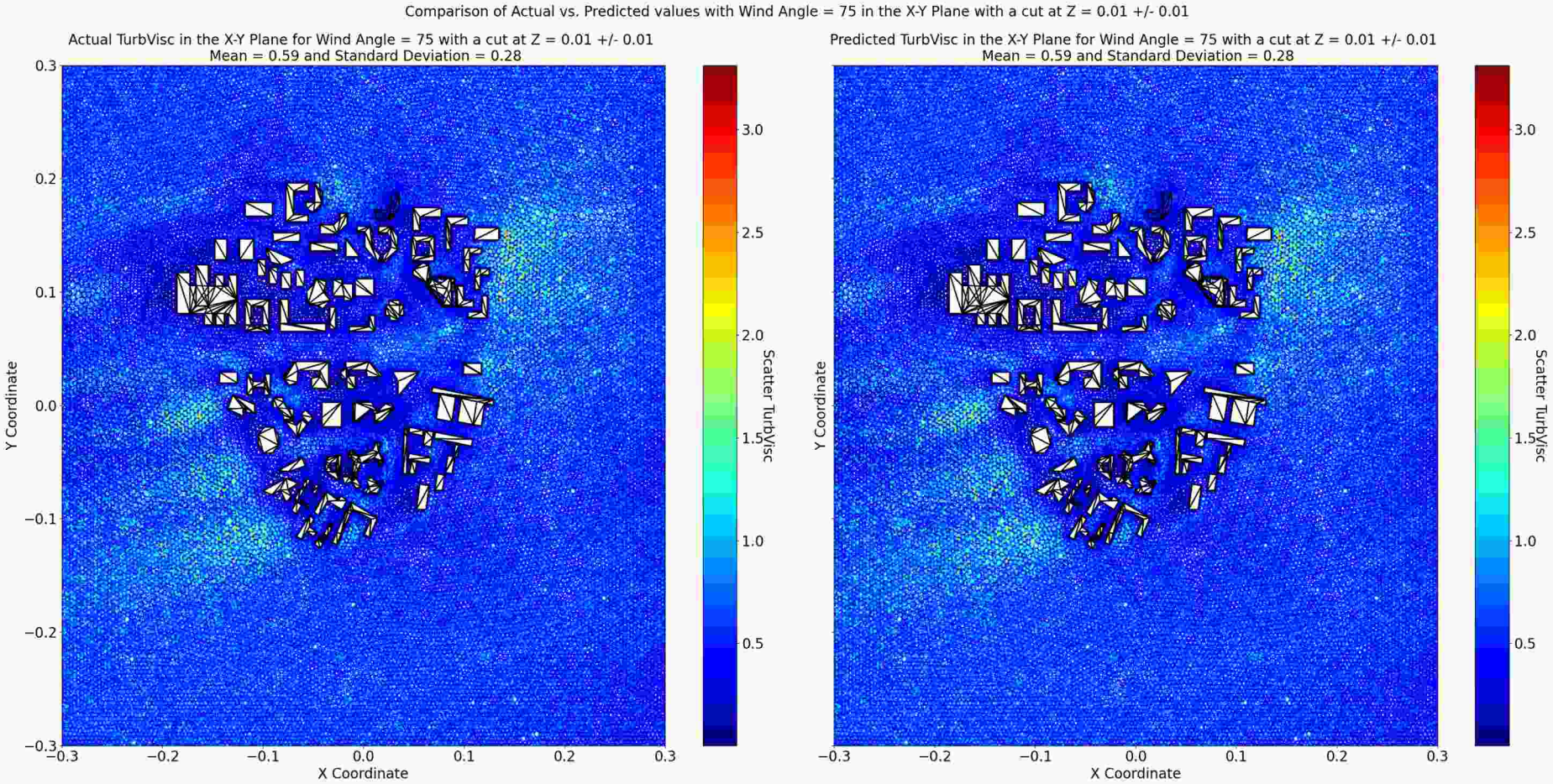

Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual TurbVisc in the X-Y Plane for Wind Angle = 30 with a cut at Z = 0.01 +/- 0.01
Mean = 0.61 and Standard Deviation = 0.38
Predicted TurbVisc in the X-Y Plane for Wind Angle = 30 with a cut at Z = 0.01 +/- 0.01
Mean = 0.62 and Standard Deviation = 0.38
Y Coordinate
X Coordinate
Scatter TurbVisc
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
3.0
2.5
2.0
1.5
1.0
0.5

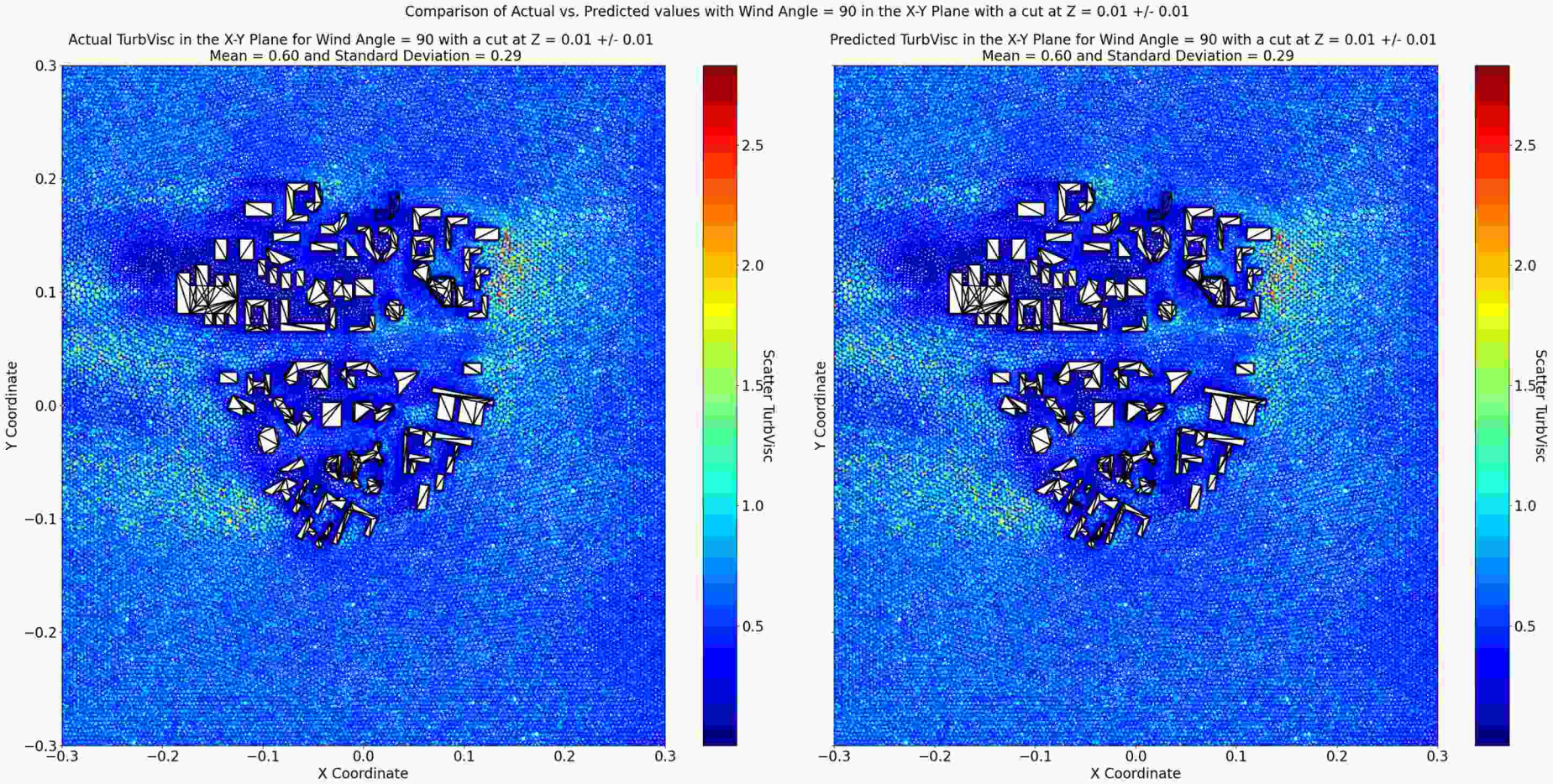
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



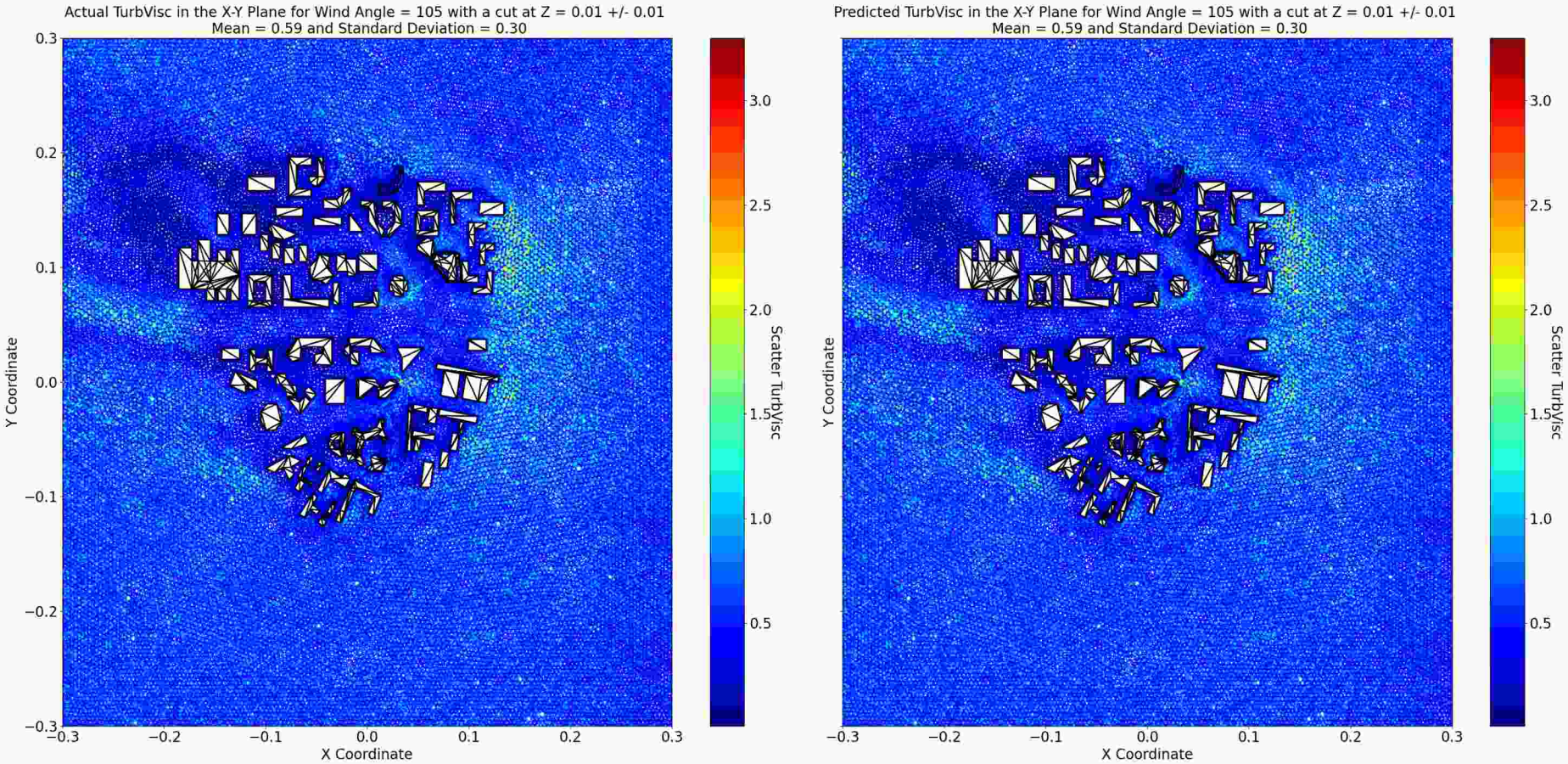


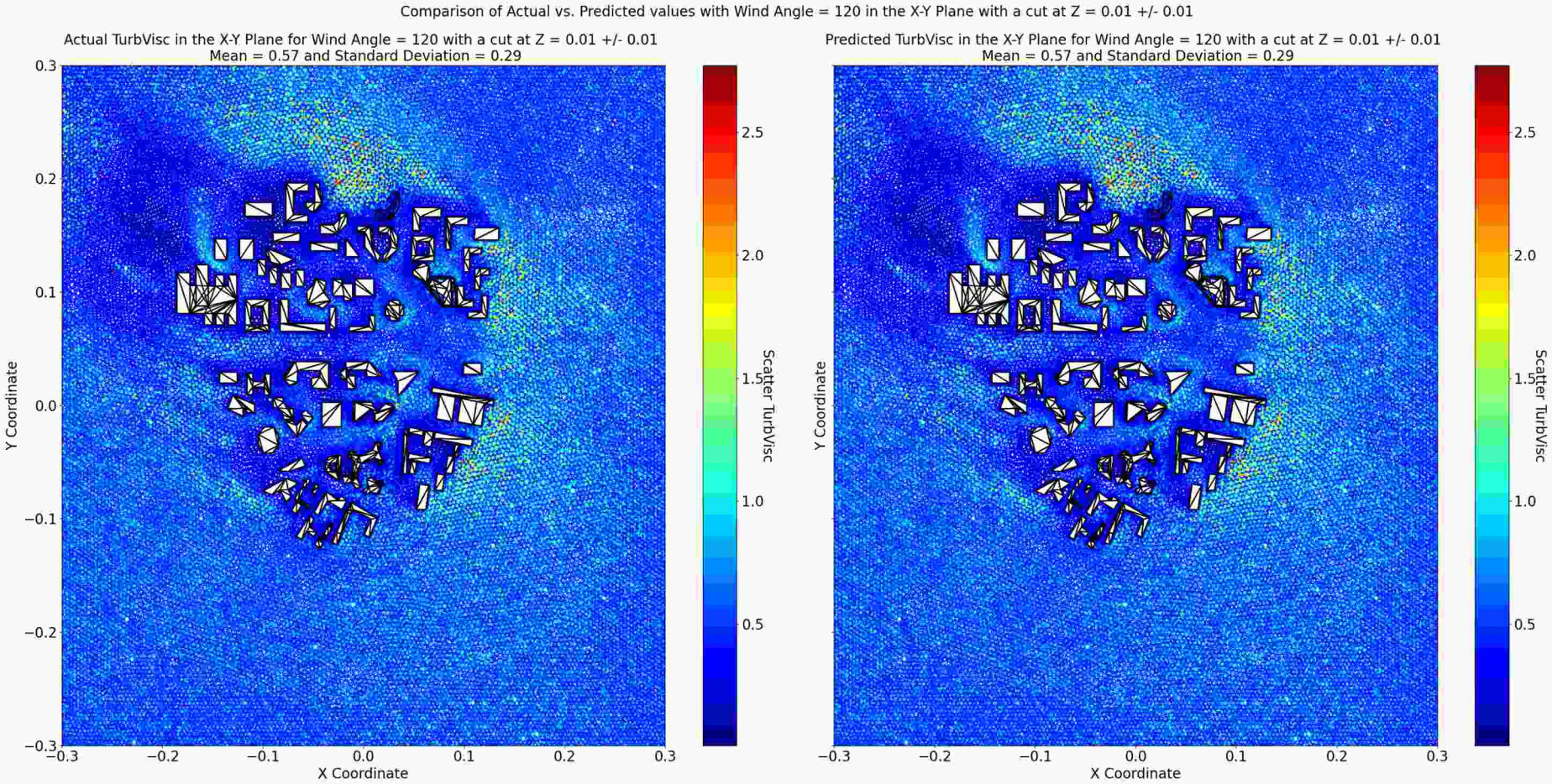

Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual TurbVisc in the X-Y Plane for Wind Angle = 60 with a cut at Z = 0.01 +/- 0.01
Mean = 0.58 and Standard Deviation = 0.30
Predicted TurbVisc in the X-Y Plane for Wind Angle = 60 with a cut at Z = 0.01 +/- 0.01
Mean = 0.58 and Standard Deviation = 0.30
Y Coordinate
X Coordinate
Scatter TurbVisc
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
2.5
2.0
1.5
1.0
0.5


Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual TurbVisc in the X-Y Plane for Wind Angle = 75 with a cut at Z = 0.01 +/- 0.01
Mean = 0.59 and Standard Deviation = 0.28
Predicted TurbVisc in the X-Y Plane for Wind Angle = 75 with a cut at Z = 0.01 +/- 0.01
Mean = 0.59 and Standard Deviation = 0.28
Y Coordinate
X Coordinate
Scatter TurbVisc
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
3.0
2.5
2.0
1.5
1.0
0.5

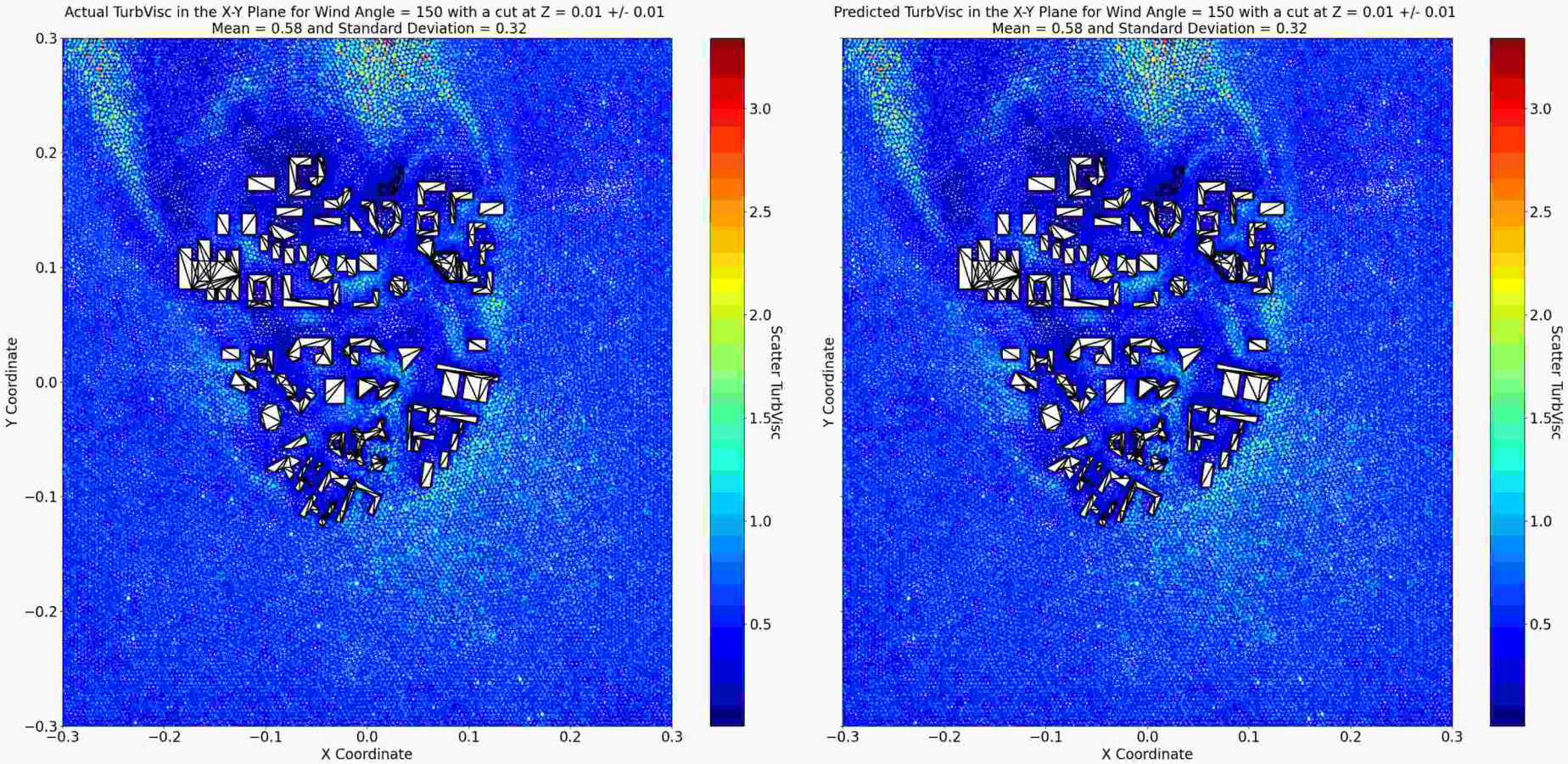

Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual TurbVisc in the X-Y Plane for Wind Angle = 90 with a cut at Z = 0.01 +/- 0.01
Mean = 0.60 and Standard Deviation = 0.29
Predicted TurbVisc in the X-Y Plane for Wind Angle = 90 with a cut at Z = 0.01 +/- 0.01
Mean = 0.60 and Standard Deviation = 0.29
Y Coordinate
X Coordinate
Scatter TurbVisc
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.5
1.0
1.5
2.0
2.5

Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

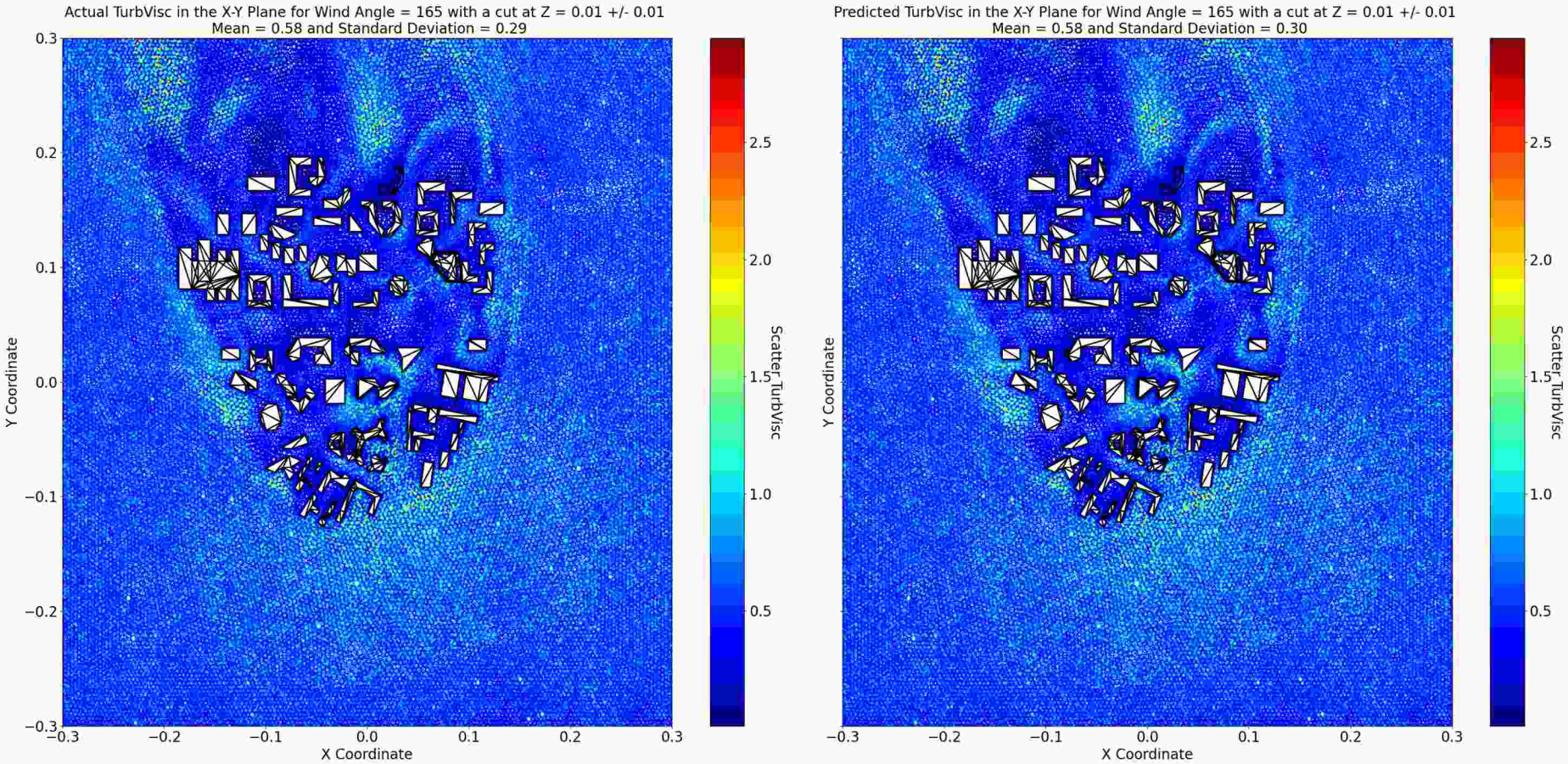



Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual TurbVisc in the X-Y Plane for Wind Angle = 120 with a cut at Z = 0.01 +/- 0.01
Mean = 0.57 and Standard Deviation = 0.29
Predicted TurbVisc in the X-Y Plane for Wind Angle = 120 with a cut at Z = 0.01 +/- 0.01
Mean = 0.57 and Standard Deviation = 0.29
Y Coordinate
X Coordinate
Scatter TurbVisc
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
2.5
2.0
1.5
1.0
0.5

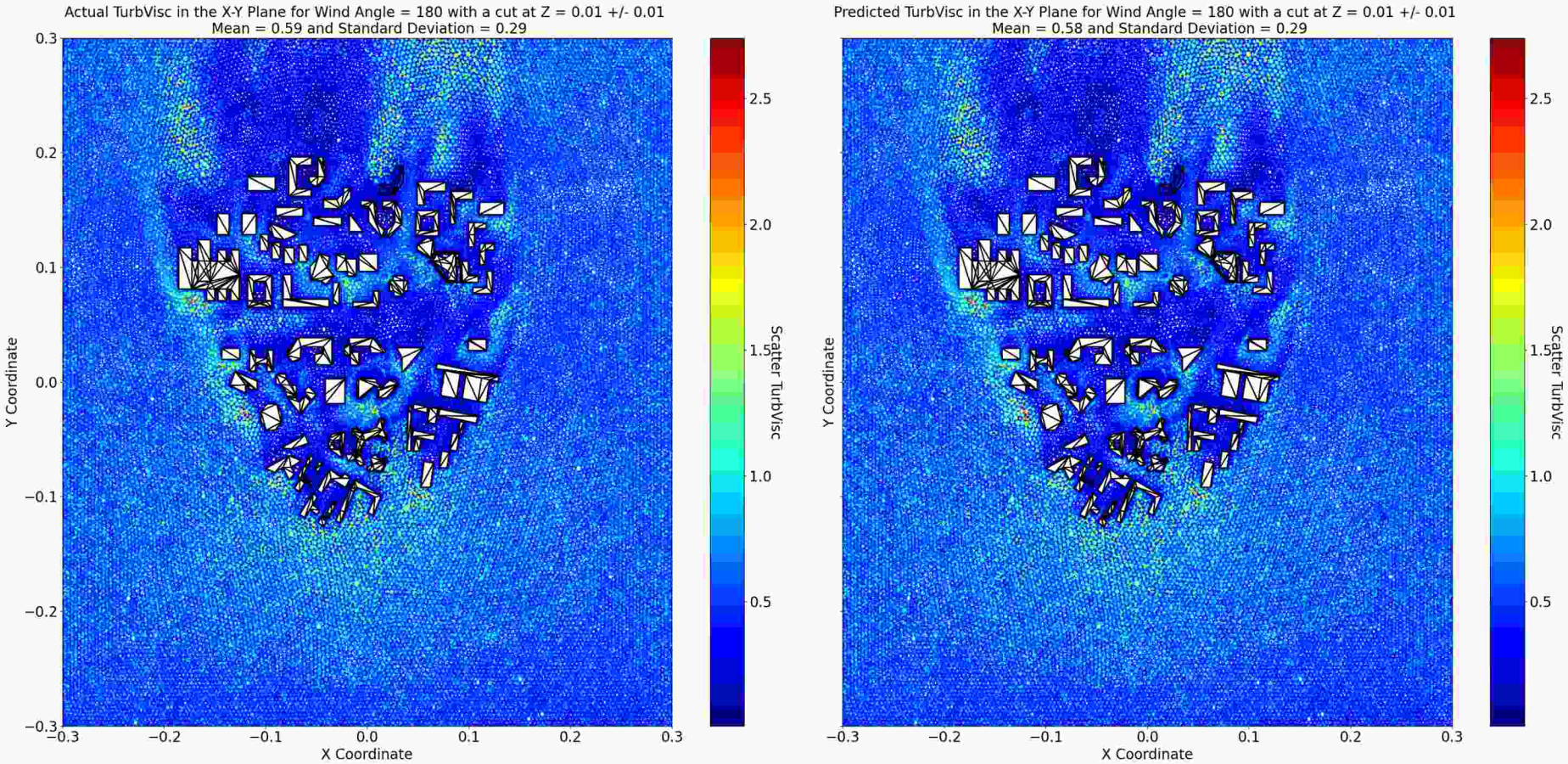
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

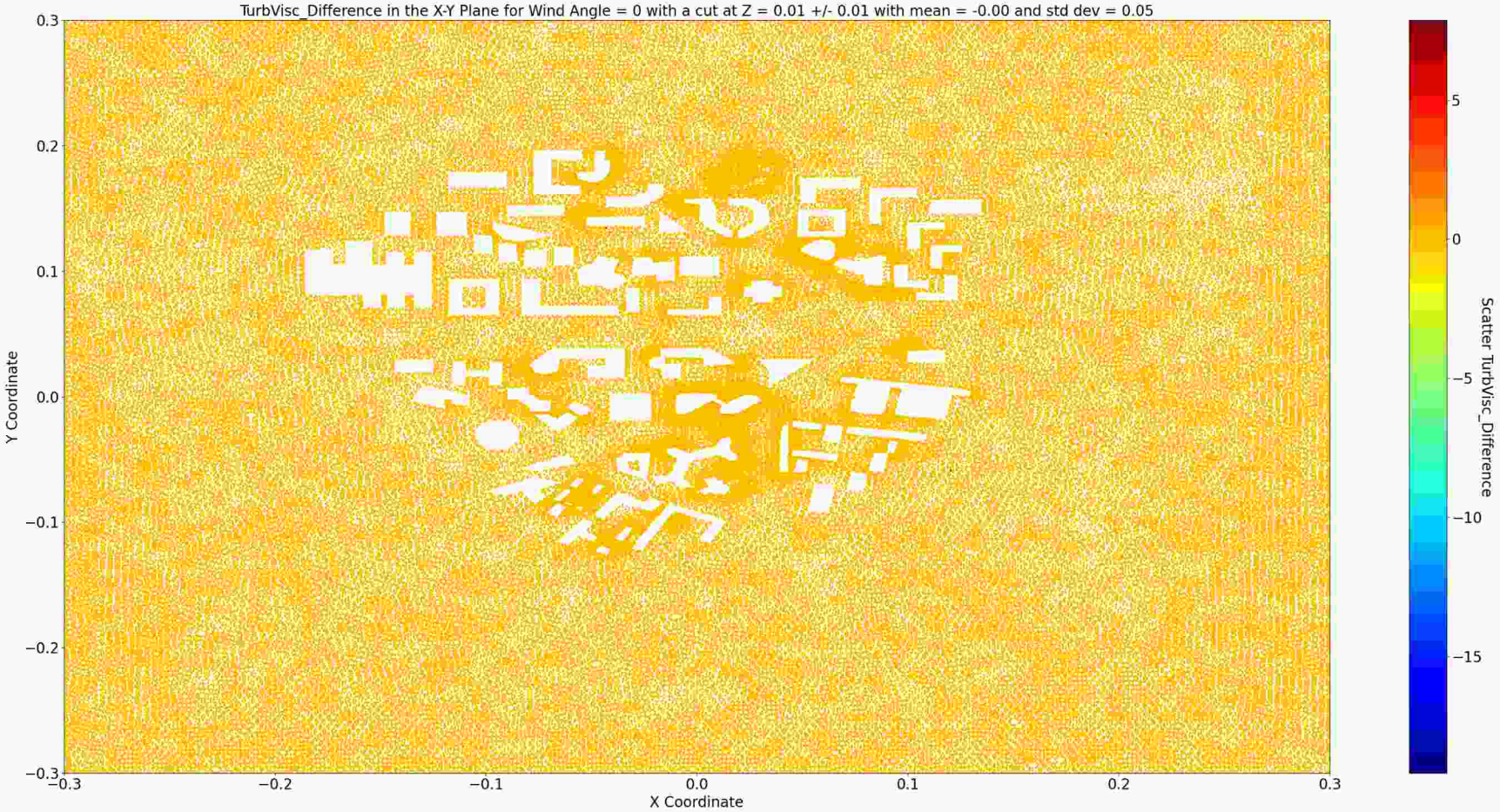


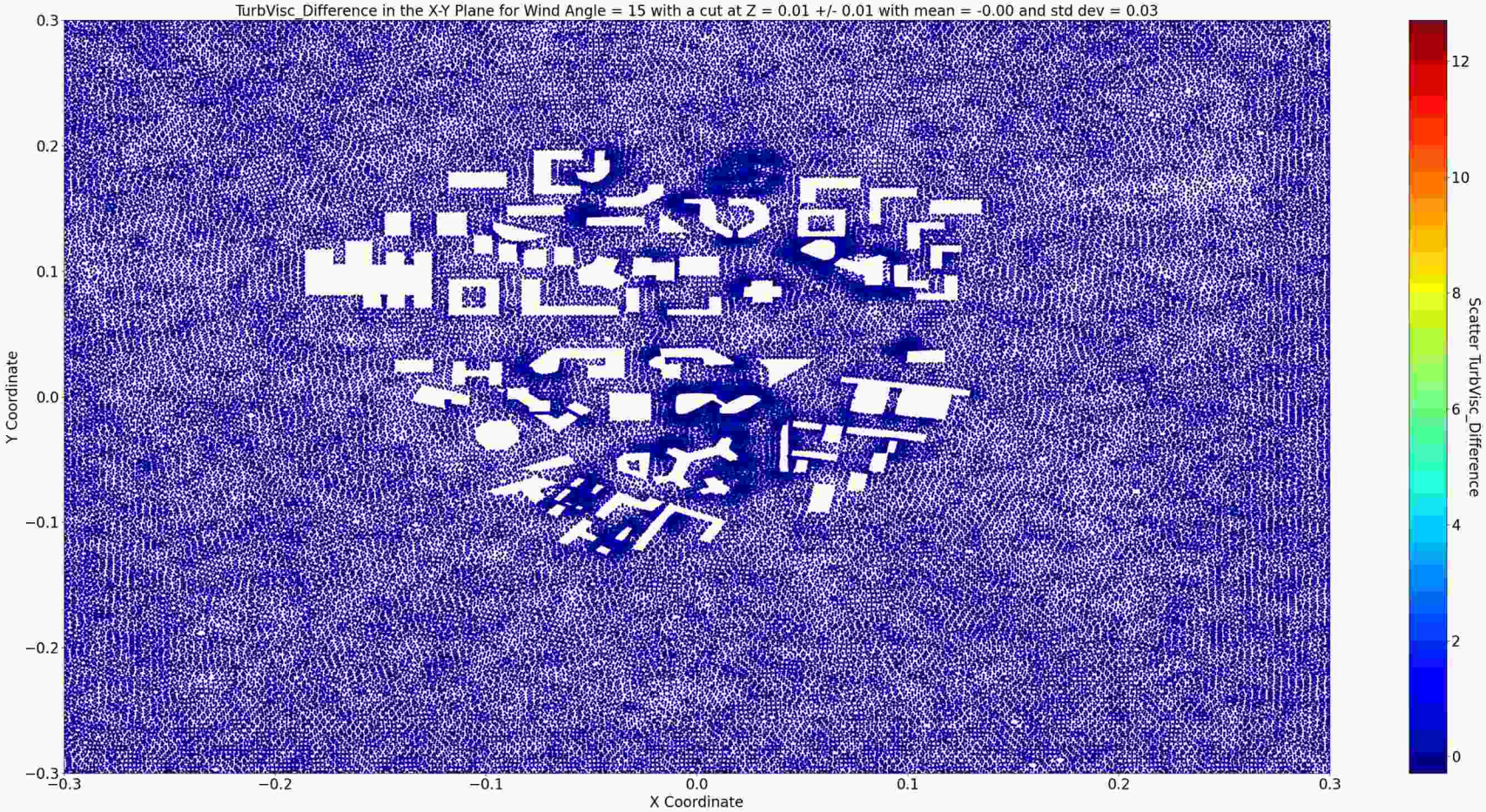
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

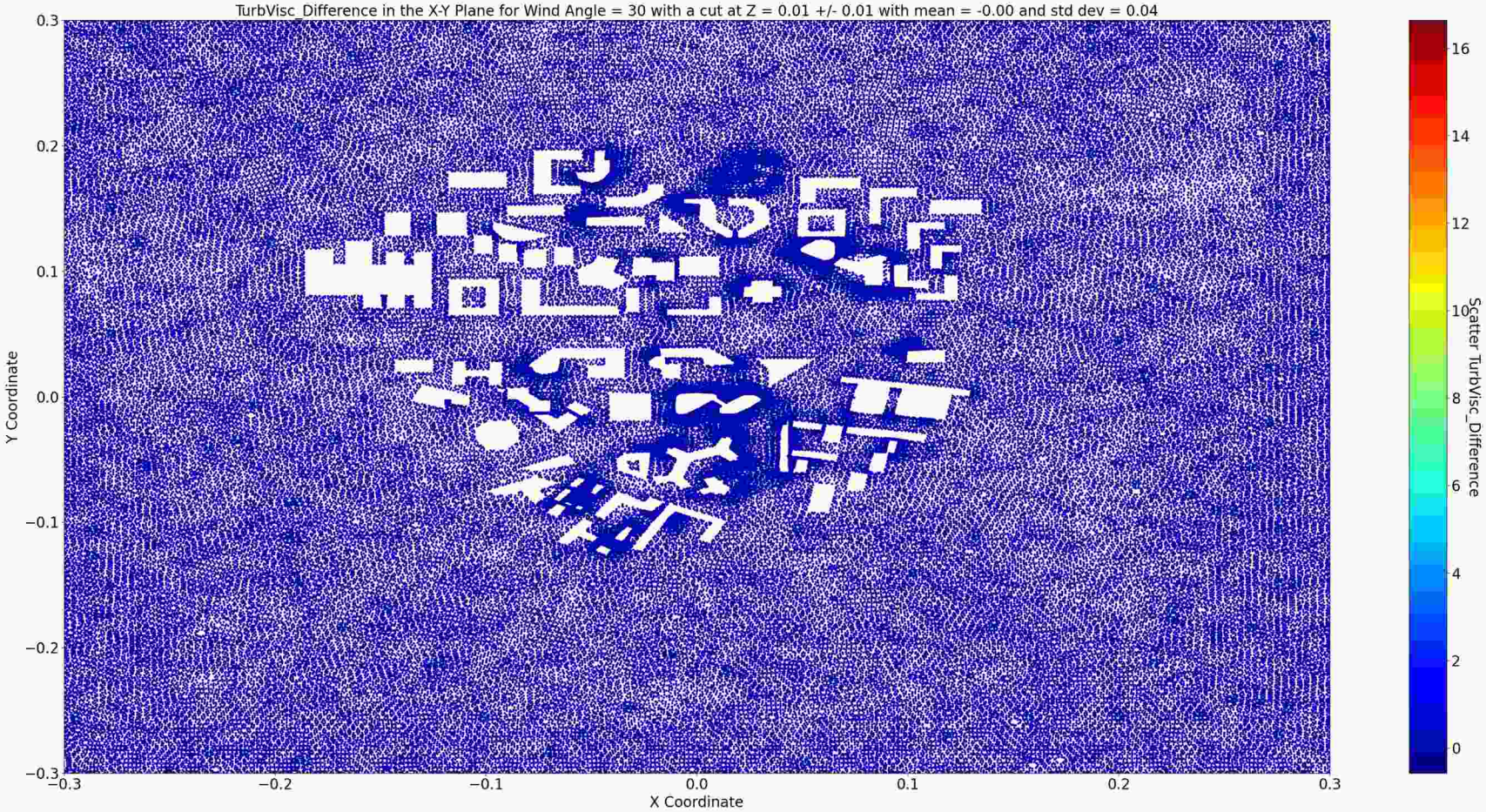


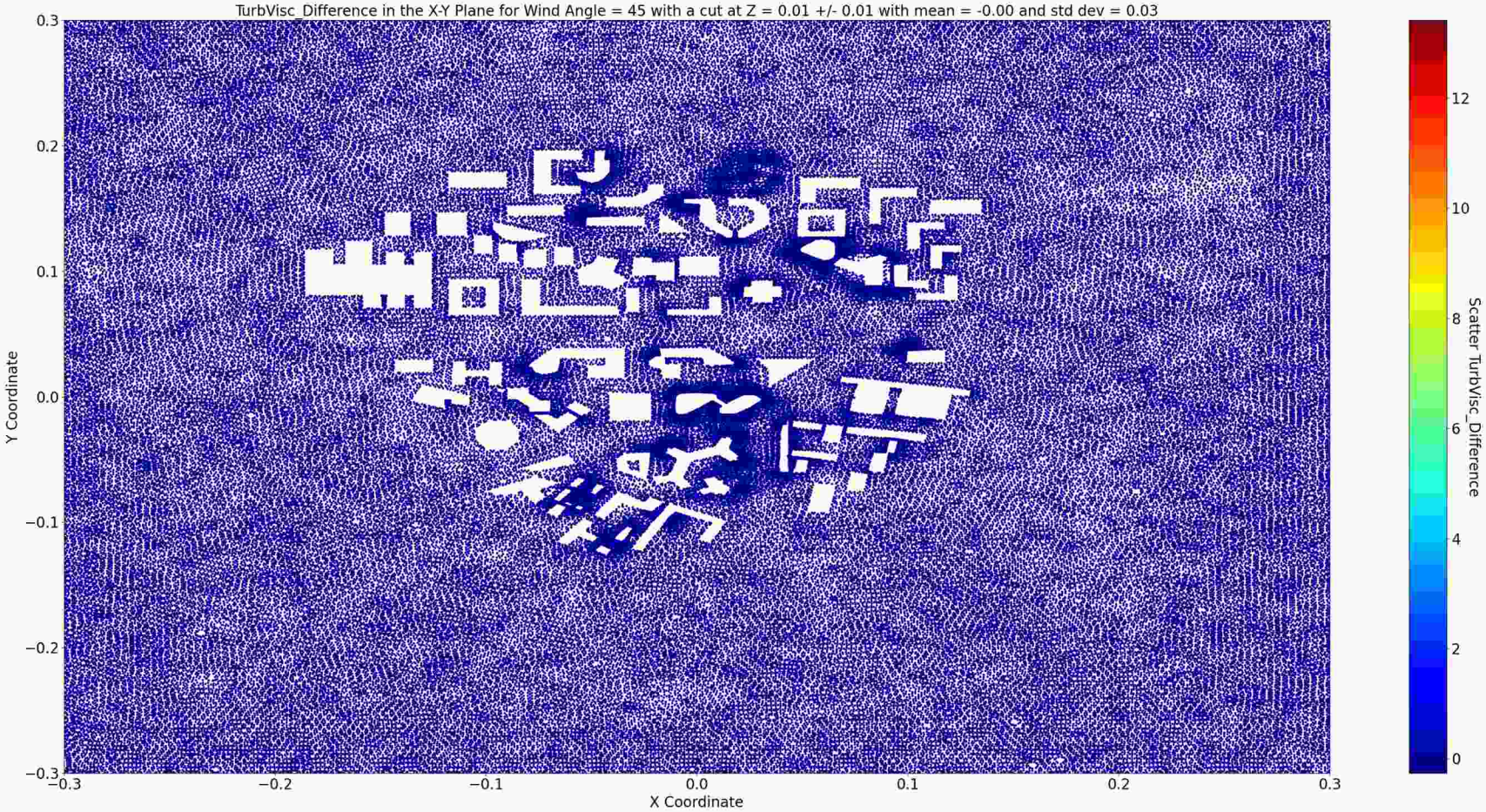
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

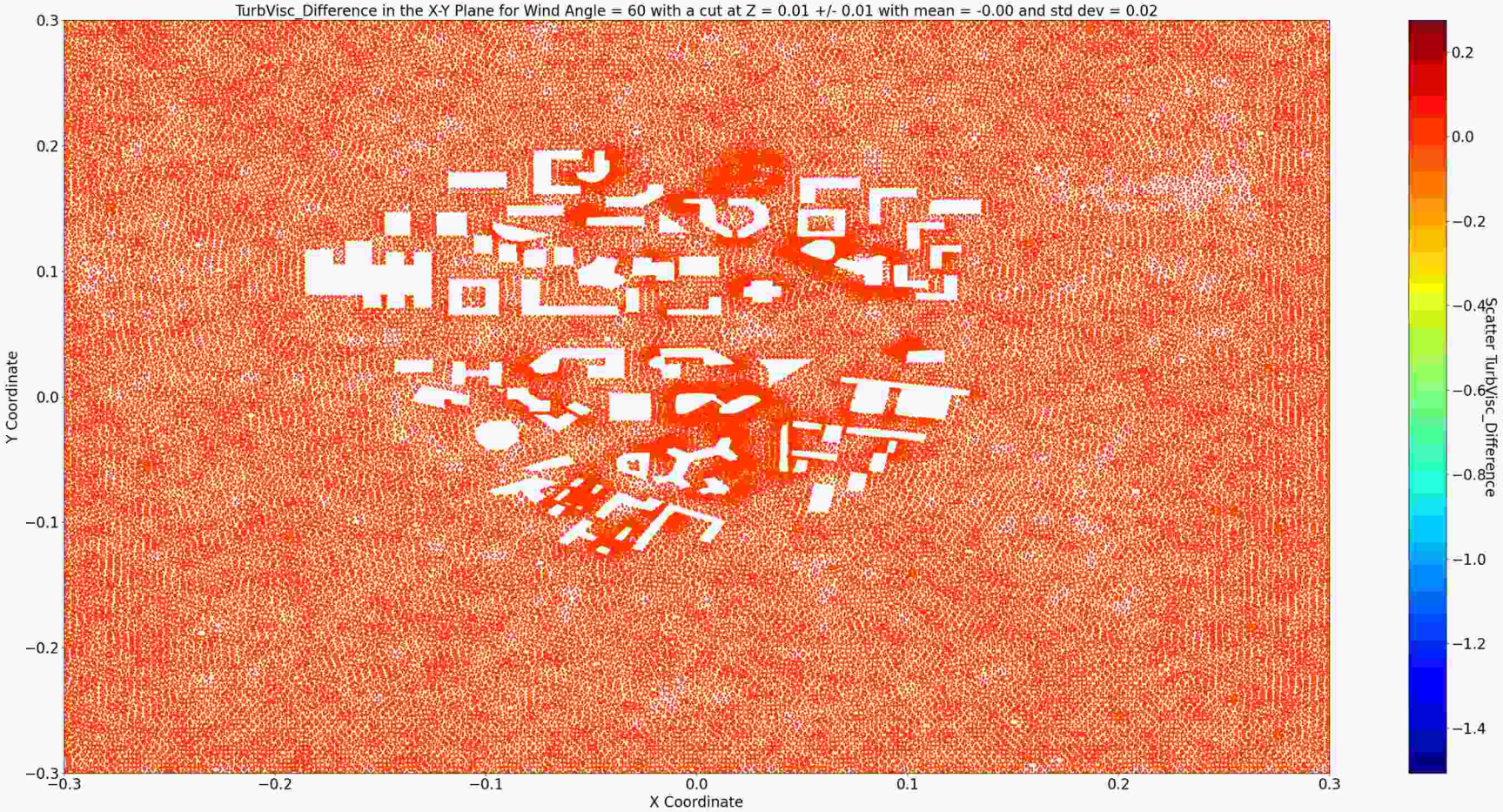


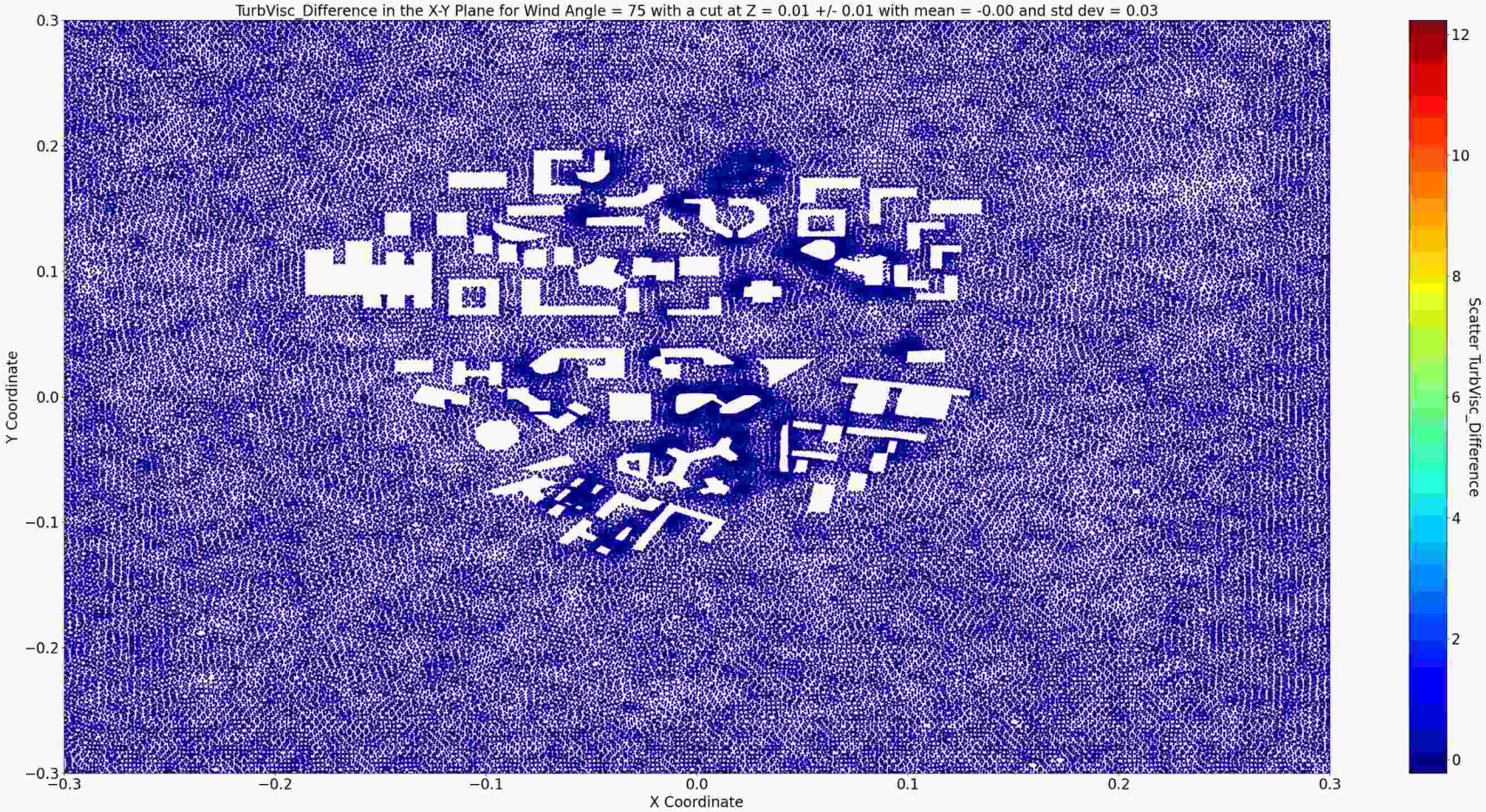

TurbVisc_Difference in the X-Y Plane for Wind Angle = 0 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.05
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter TurbVisc_Difference
5
0
−5
−10
−15

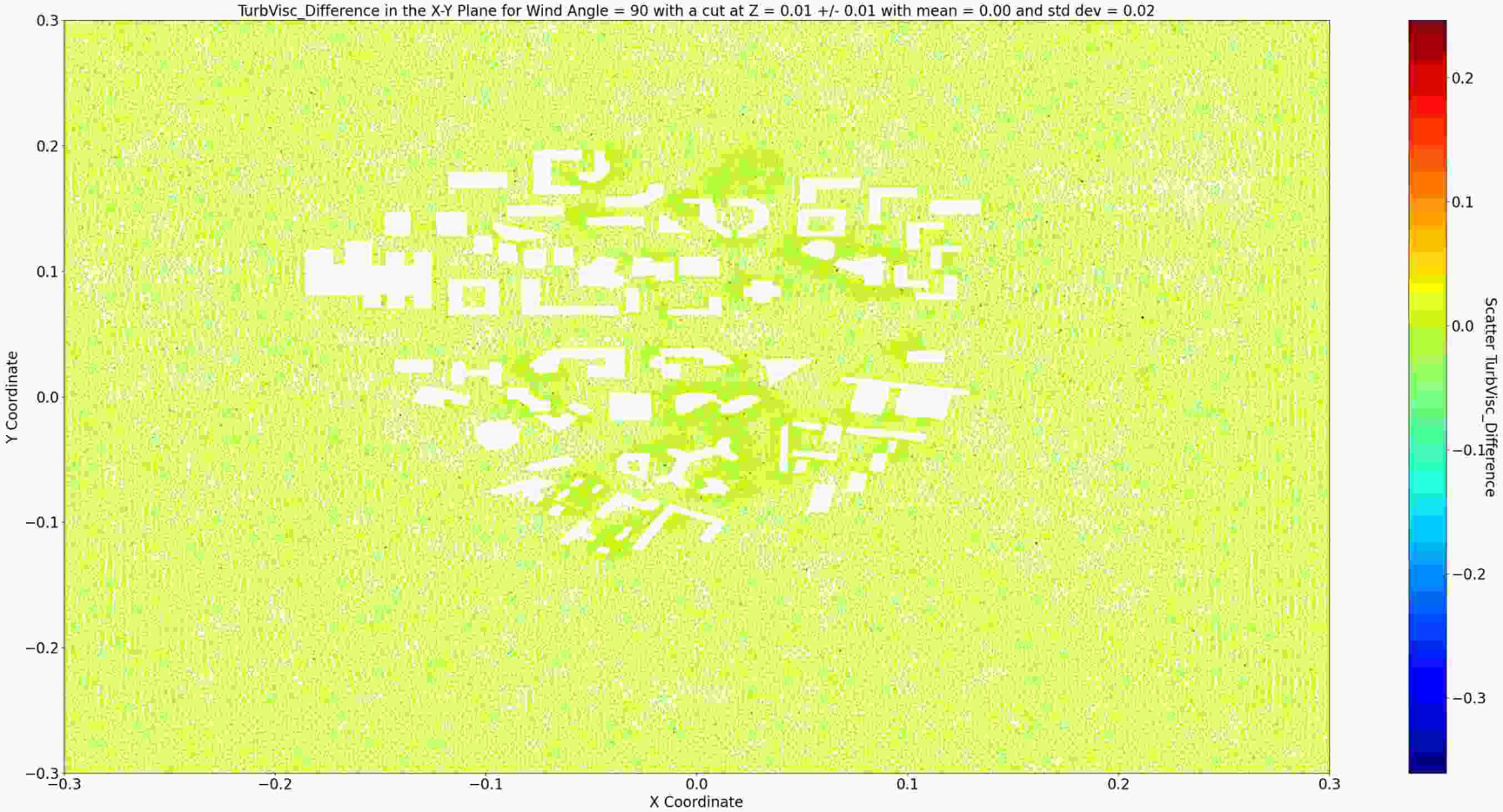

TurbVisc_Difference in the X-Y Plane for Wind Angle = 15 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.03
Y Coordinate
X Coordinate
Scatter TurbVisc_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
12
10
8
6
4
2
0

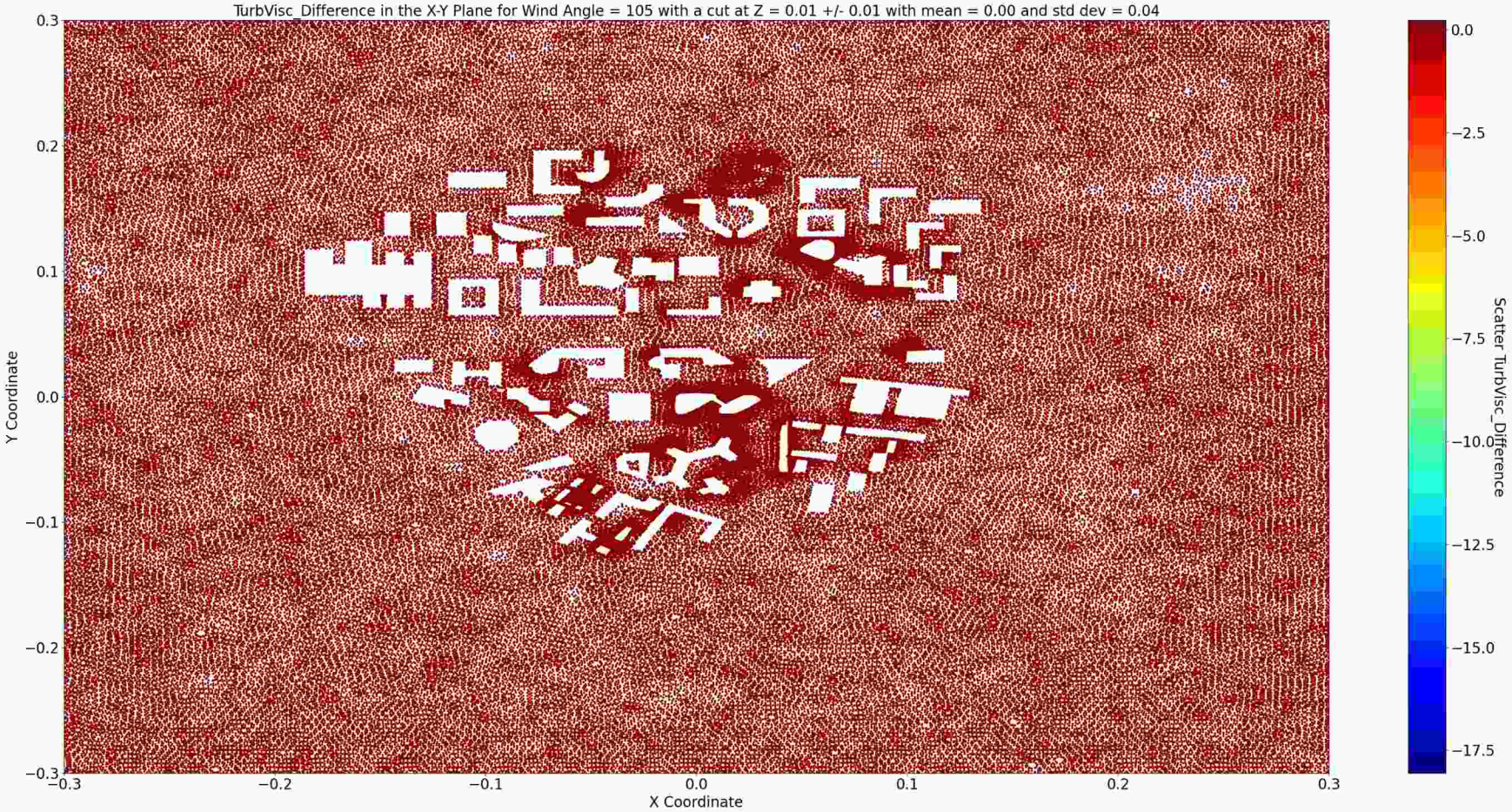

TurbVisc_Difference in the X-Y Plane for Wind Angle = 30 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.04
Y Coordinate
X Coordinate
Scatter TurbVisc_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
16
14
12
10
8
6
4
2
0

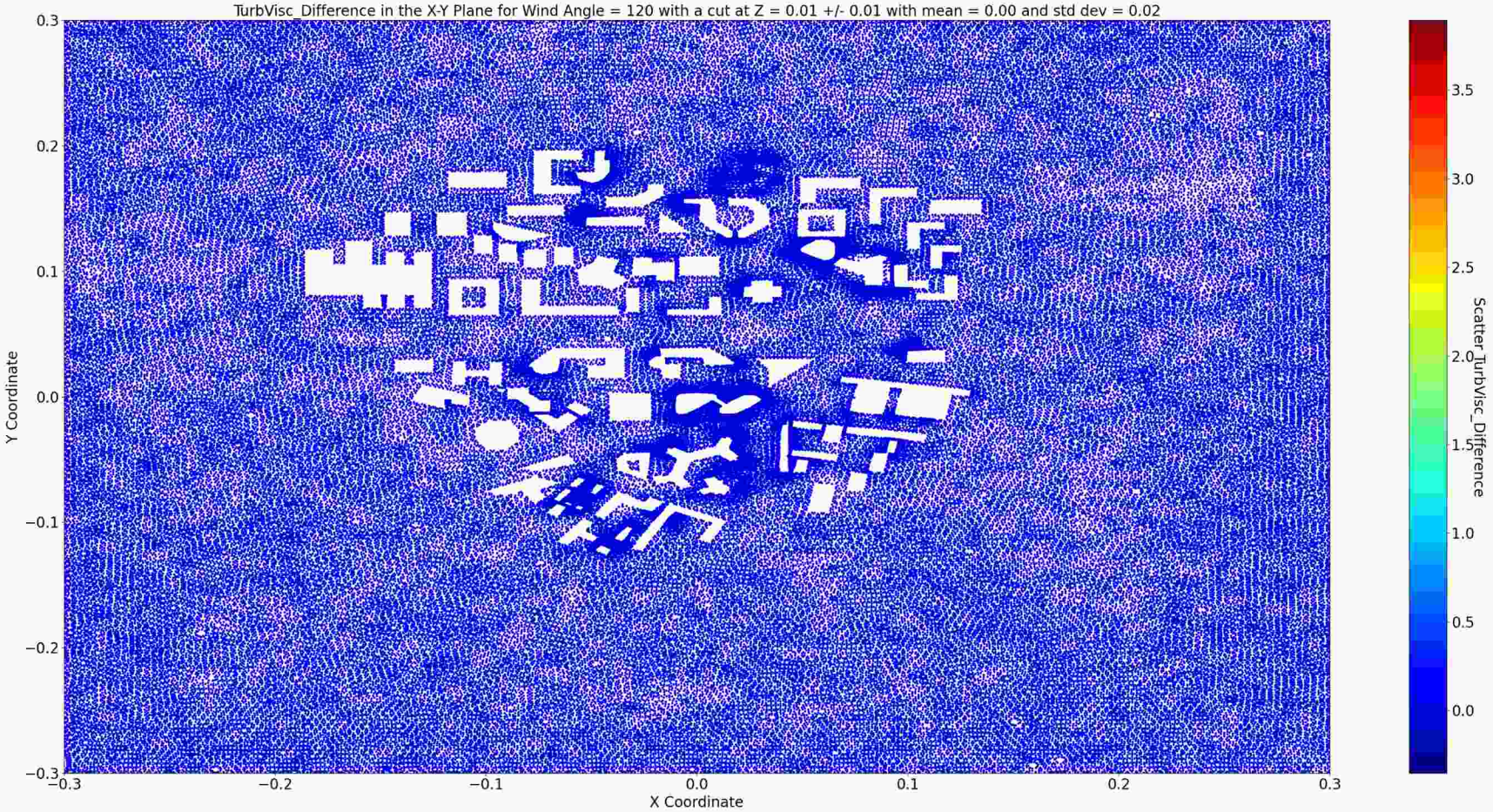

TurbVisc_Difference in the X-Y Plane for Wind Angle = 45 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.03
Y Coordinate
X Coordinate
Scatter TurbVisc_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0
2
4
6
8
10
12

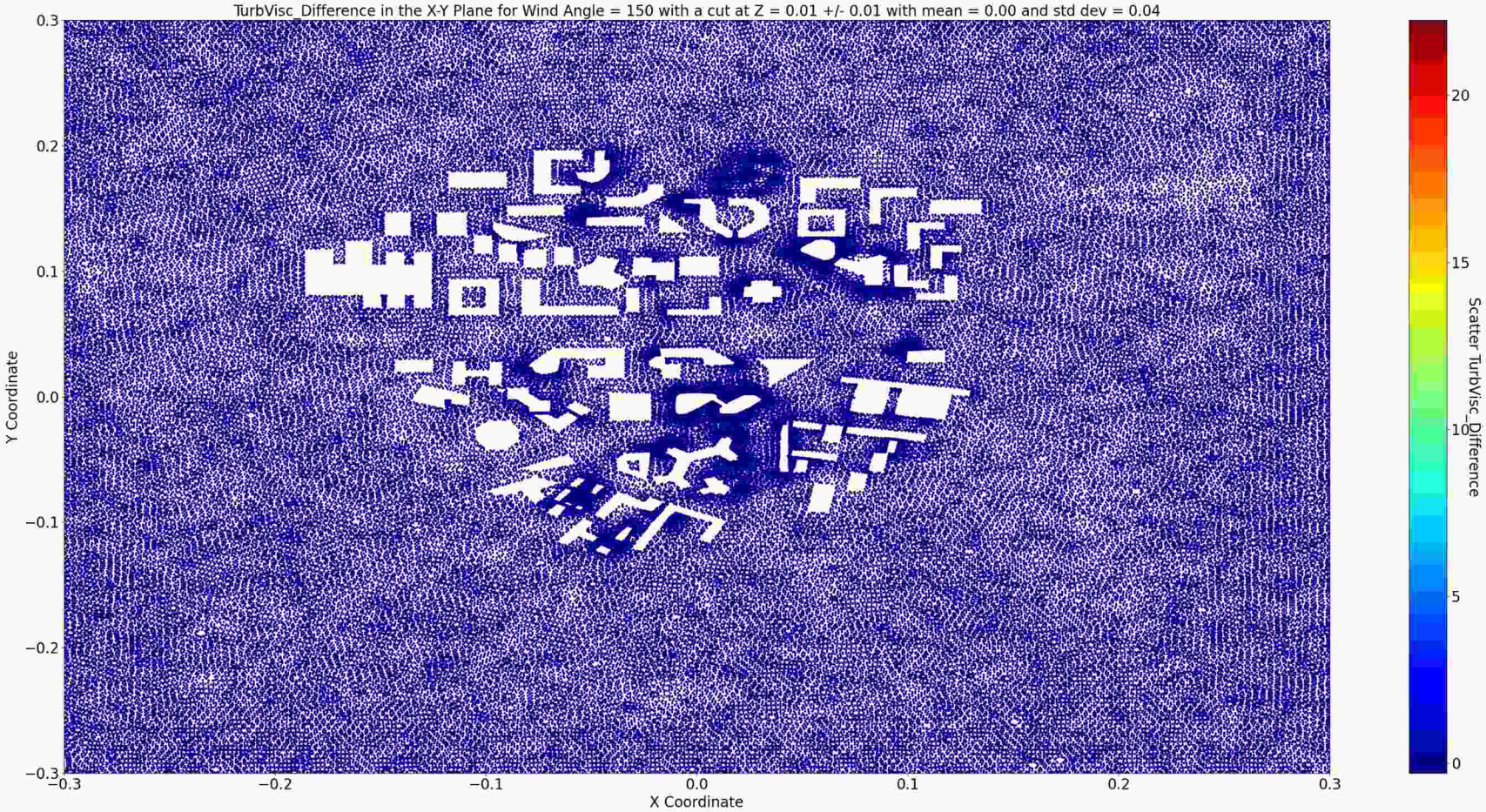

TurbVisc_Difference in the X-Y Plane for Wind Angle = 60 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.02
Y Coordinate
X Coordinate
Scatter TurbVisc_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.2
0.0
−0.2
−0.4
−0.6
−0.8
−1.0
−1.2
−1.4

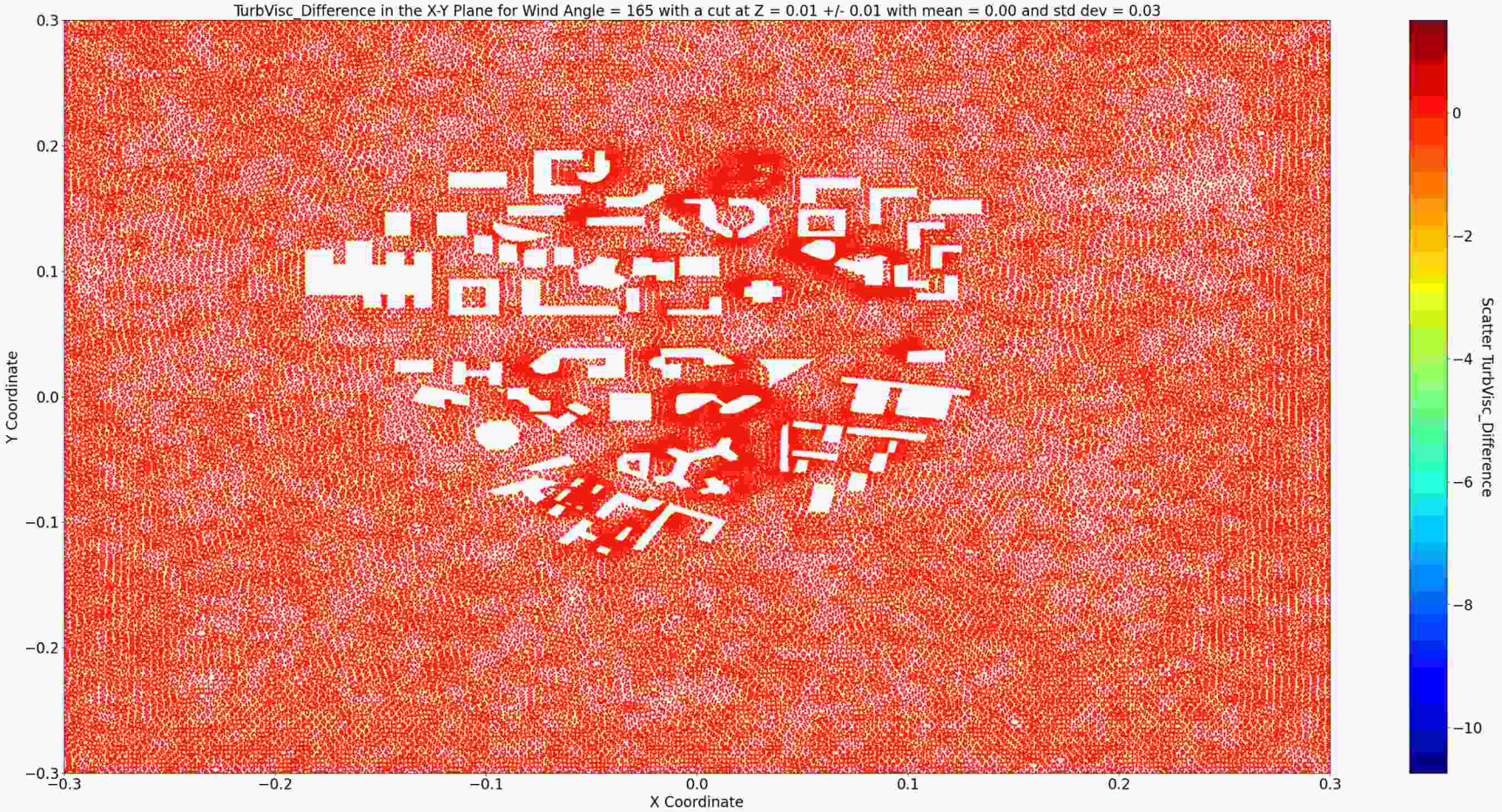

TurbVisc_Difference in the X-Y Plane for Wind Angle = 75 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.03
Y Coordinate
X Coordinate
Scatter TurbVisc_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
12
10
8
6
4
2
0

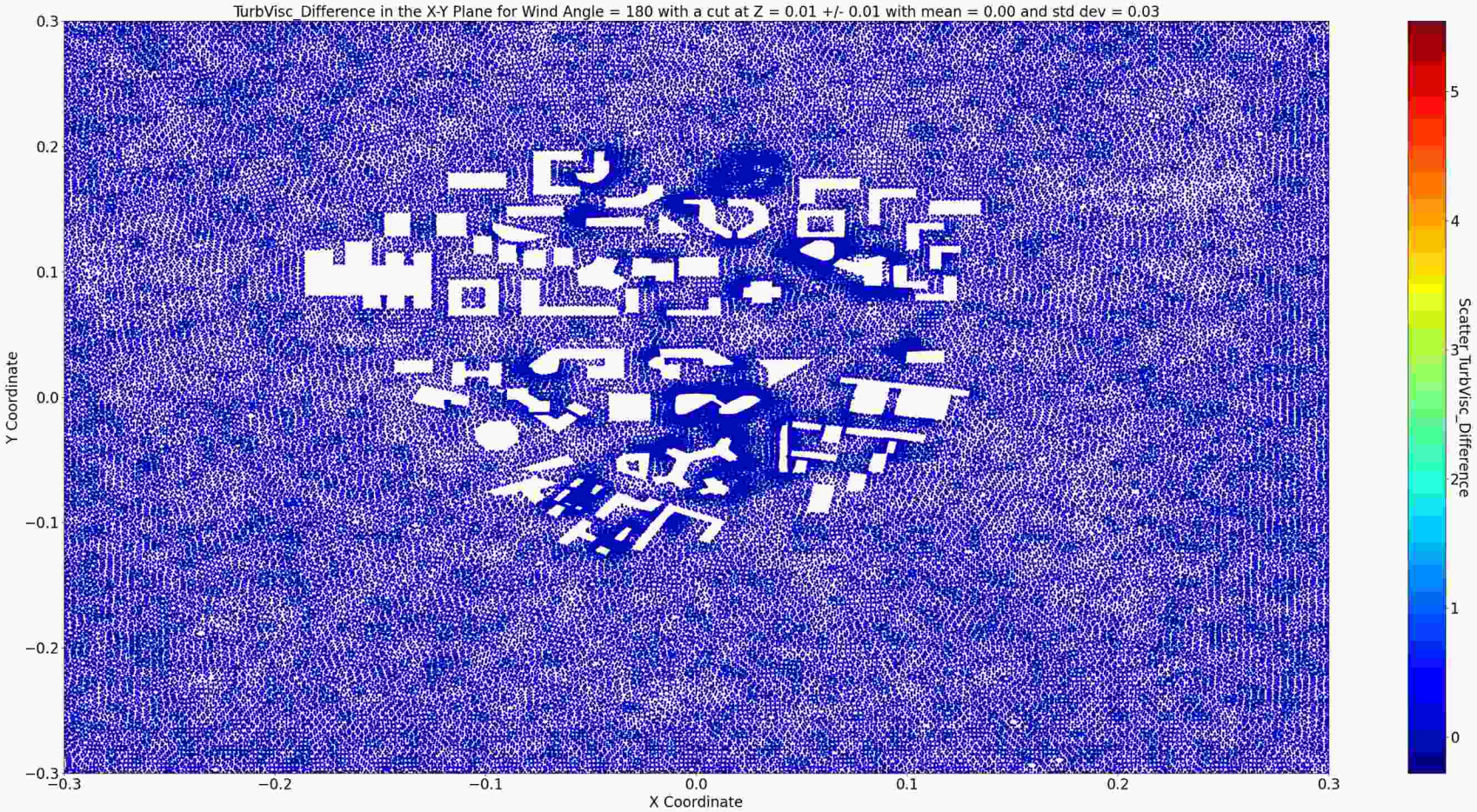

TurbVisc_Difference in the X-Y Plane for Wind Angle = 90 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.02
Y Coordinate
X Coordinate
Scatter TurbVisc_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3


TurbVisc_Difference in the X-Y Plane for Wind Angle = 105 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.04
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter TurbVisc_Difference
0.0
−2.5
−5.0
−7.5
−10.0
−12.5
−15.0
−17.5

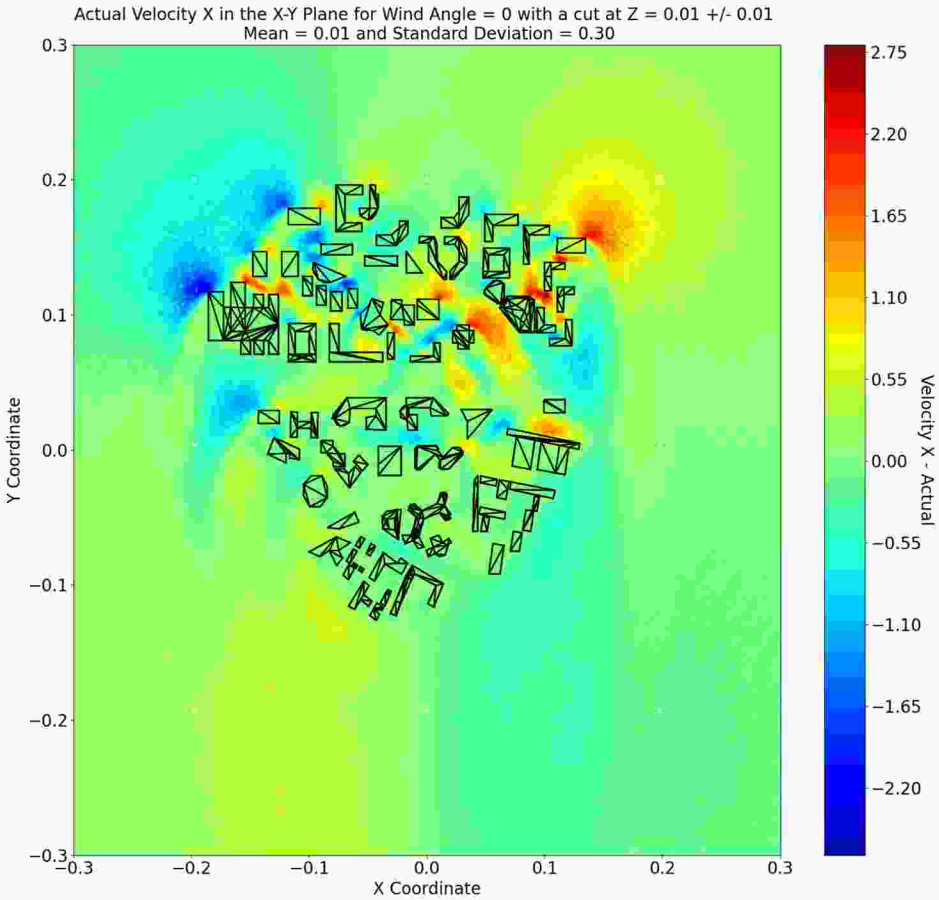

TurbVisc_Difference in the X-Y Plane for Wind Angle = 120 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.02
Y Coordinate
X Coordinate
Scatter_TurbVisc_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0

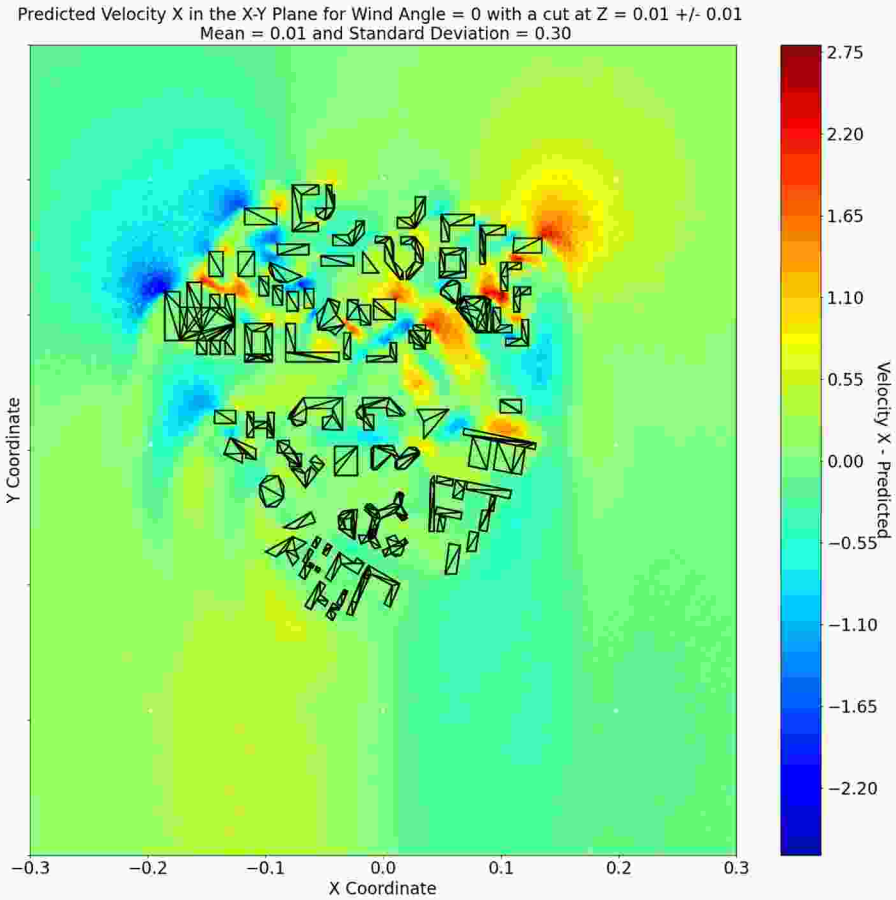

TurbVisc_Difference in the X-Y Plane for Wind Angle = 150 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.04
Y Coordinate
X Coordinate
Scatter TurbVisc_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
20
15
10
5
0


TurbVisc_Difference in the X-Y Plane for Wind Angle = 165 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.03
Y Coordinate
X Coordinate
Scatter TurbVisc_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0
−2
−4
−6
−8
−10

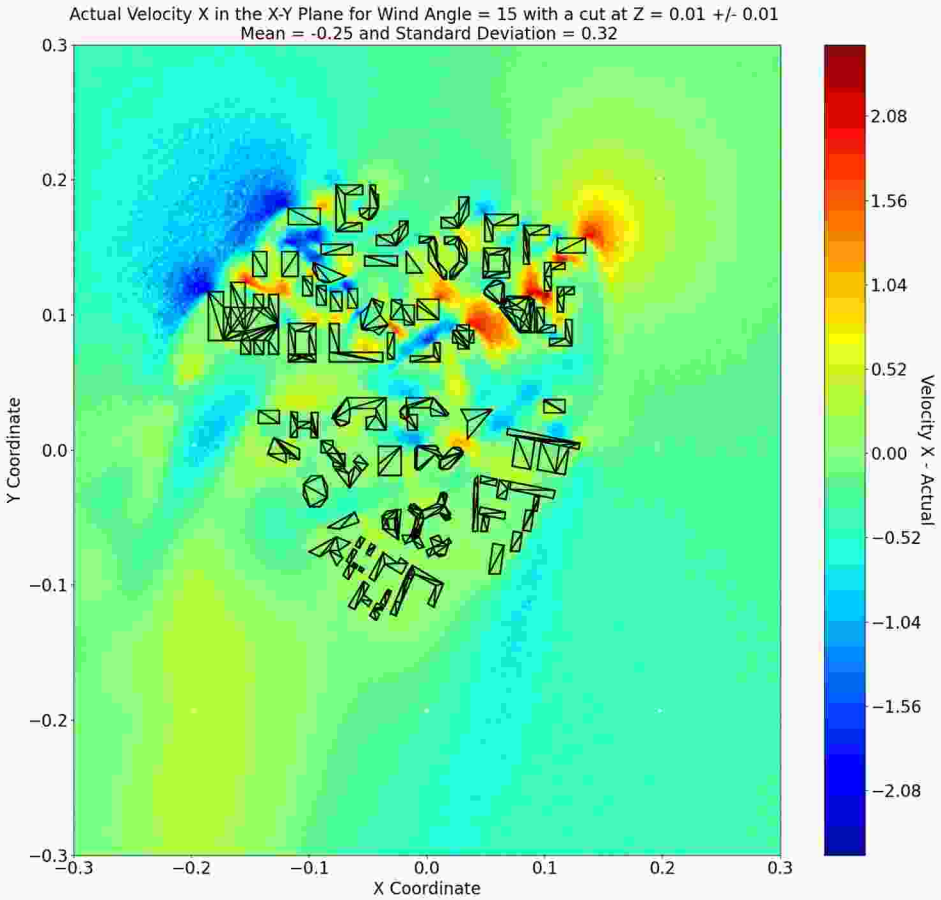

TurbVisc_Difference in the X-Y Plane for Wind Angle = 180 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.03
Y Coordinate
X Coordinate
Scatter_TurbVisc_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
5
4
3
2
1
0

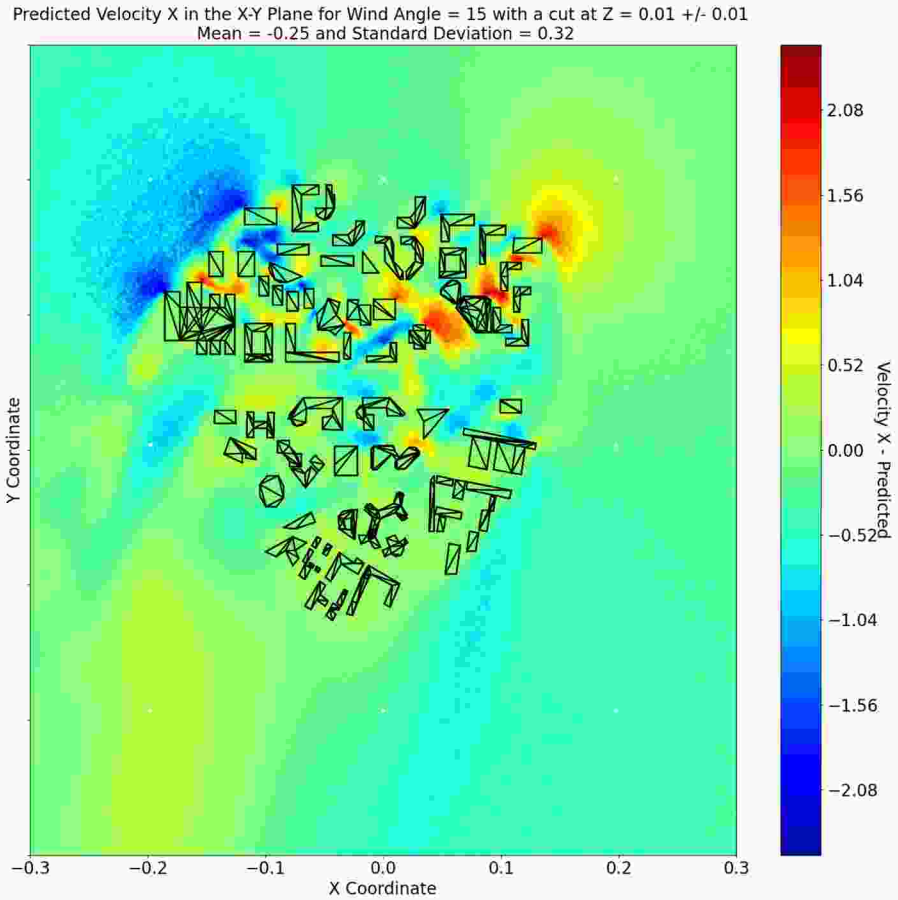
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



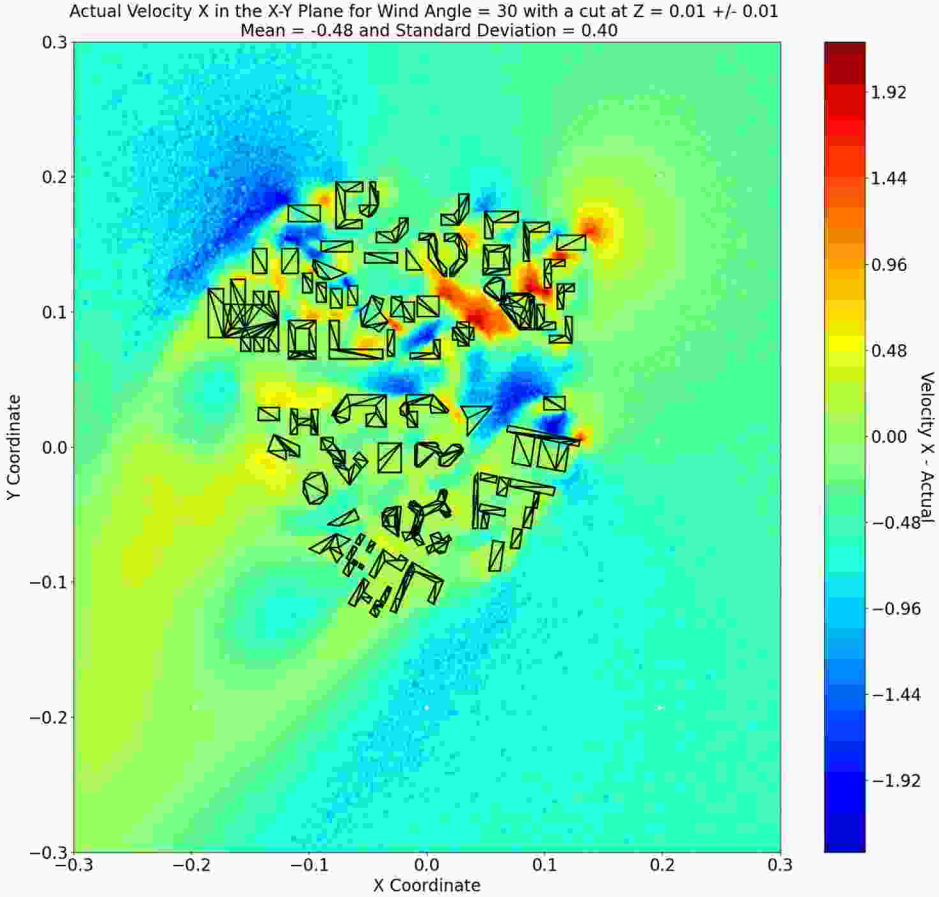


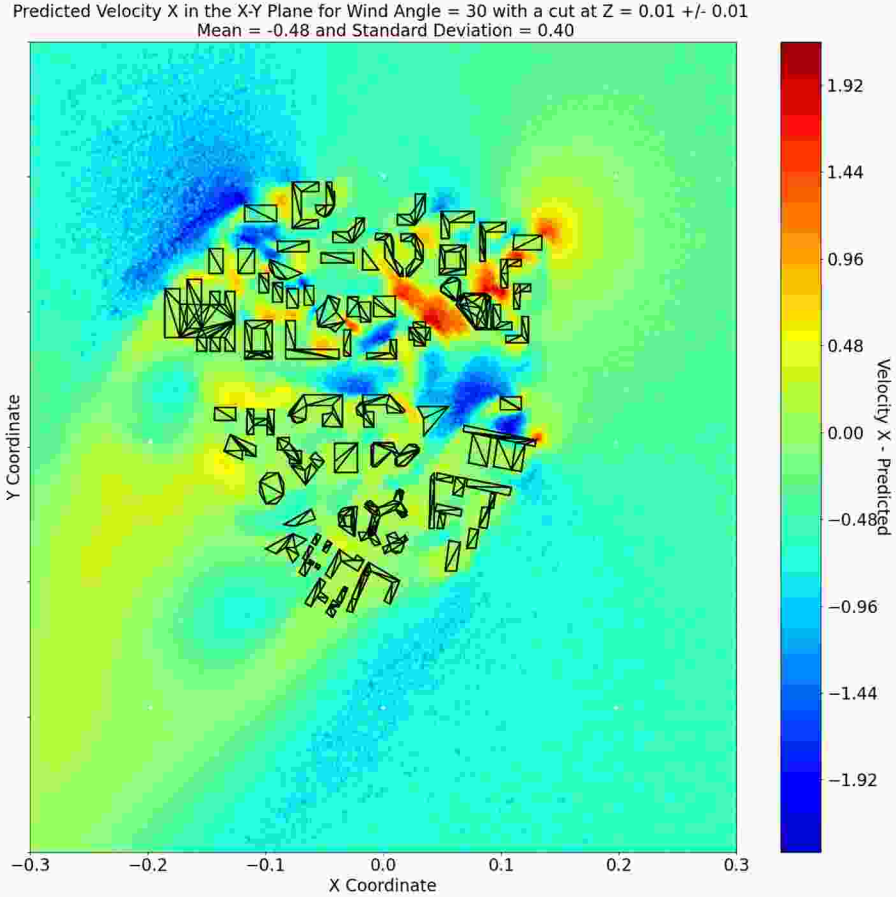
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

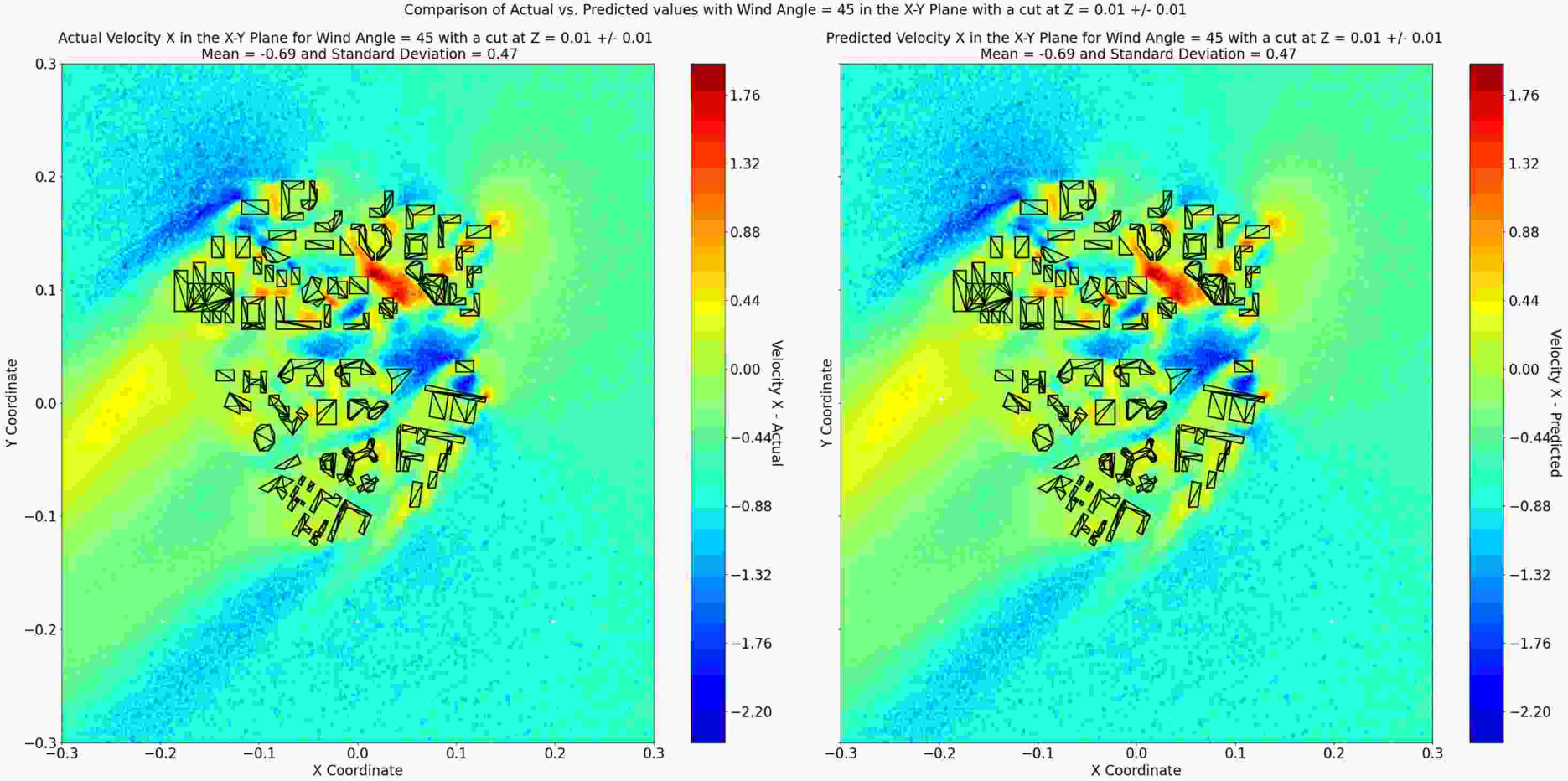




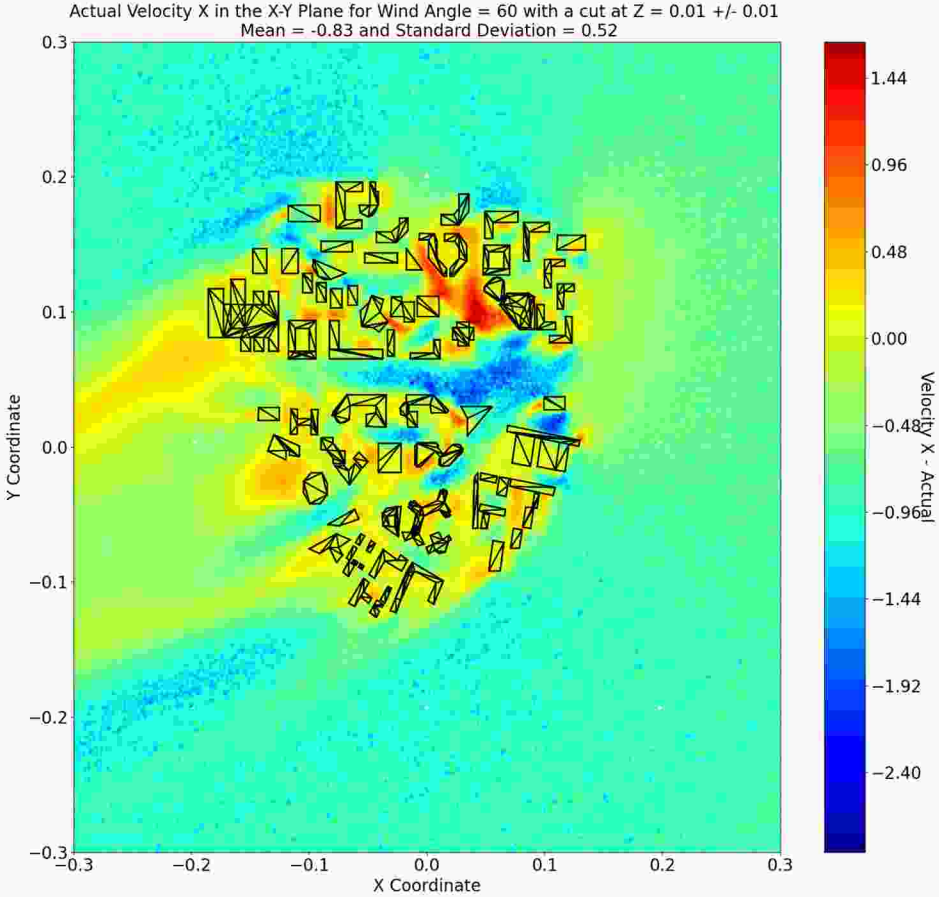
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

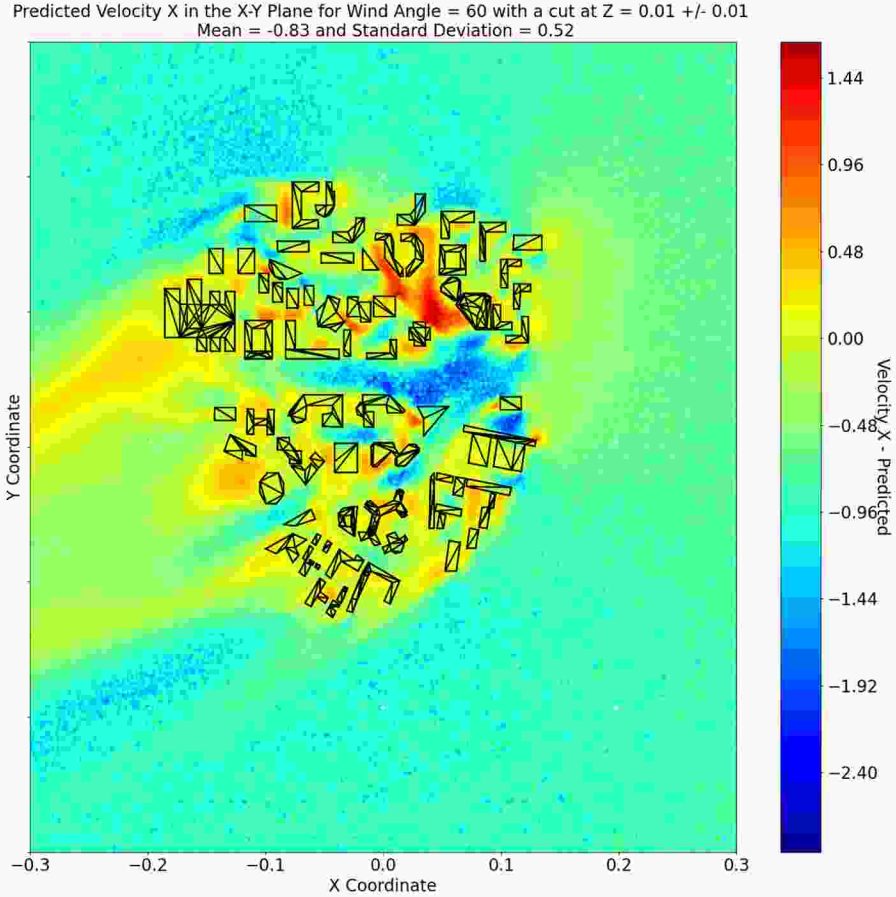




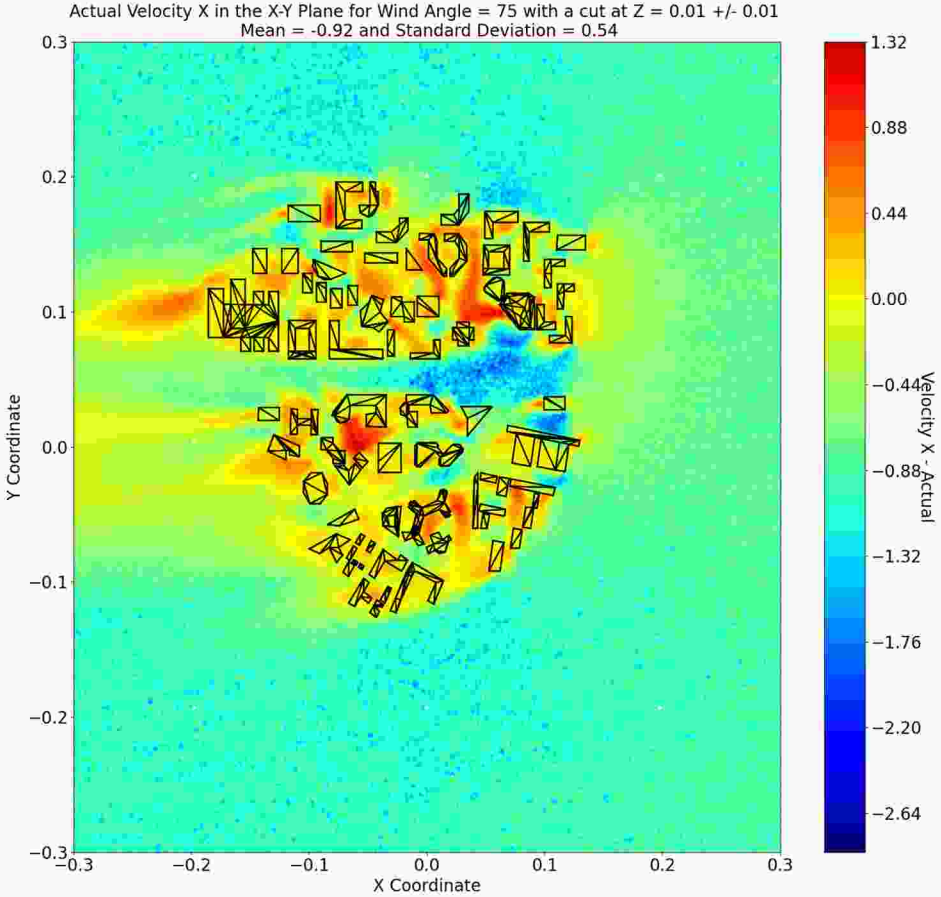

Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual Velocity X in the X-Y Plane for Wind Angle = 45 with a cut at Z = 0.01 +/- 0.01
Mean = -0.69 and Standard Deviation = 0.47
Predicted Velocity X in the X-Y Plane for Wind Angle = 45 with a cut at Z = 0.01 +/- 0.01
Mean = -0.69 and Standard Deviation = 0.47
Y Coordinate
X Coordinate
Velocity X - Actual
Velocity X - Predicted
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
1.76
1.32
0.88
0.44
0.00
−0.44
−0.88
−1.32
−1.76
−2.20

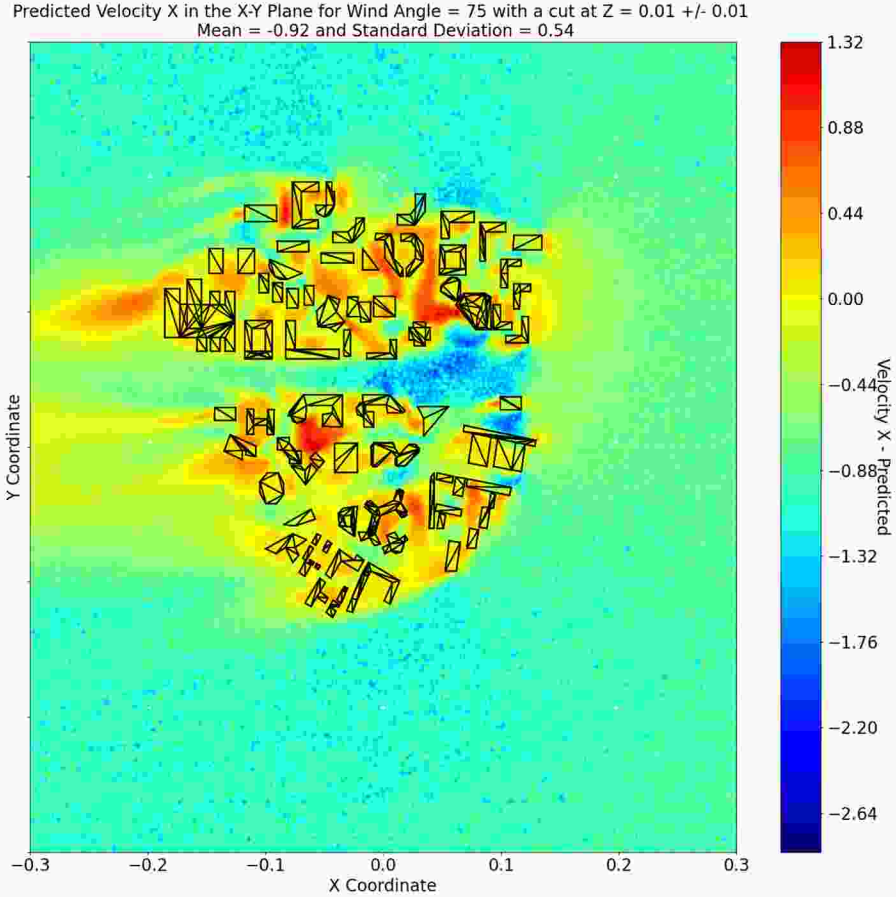
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

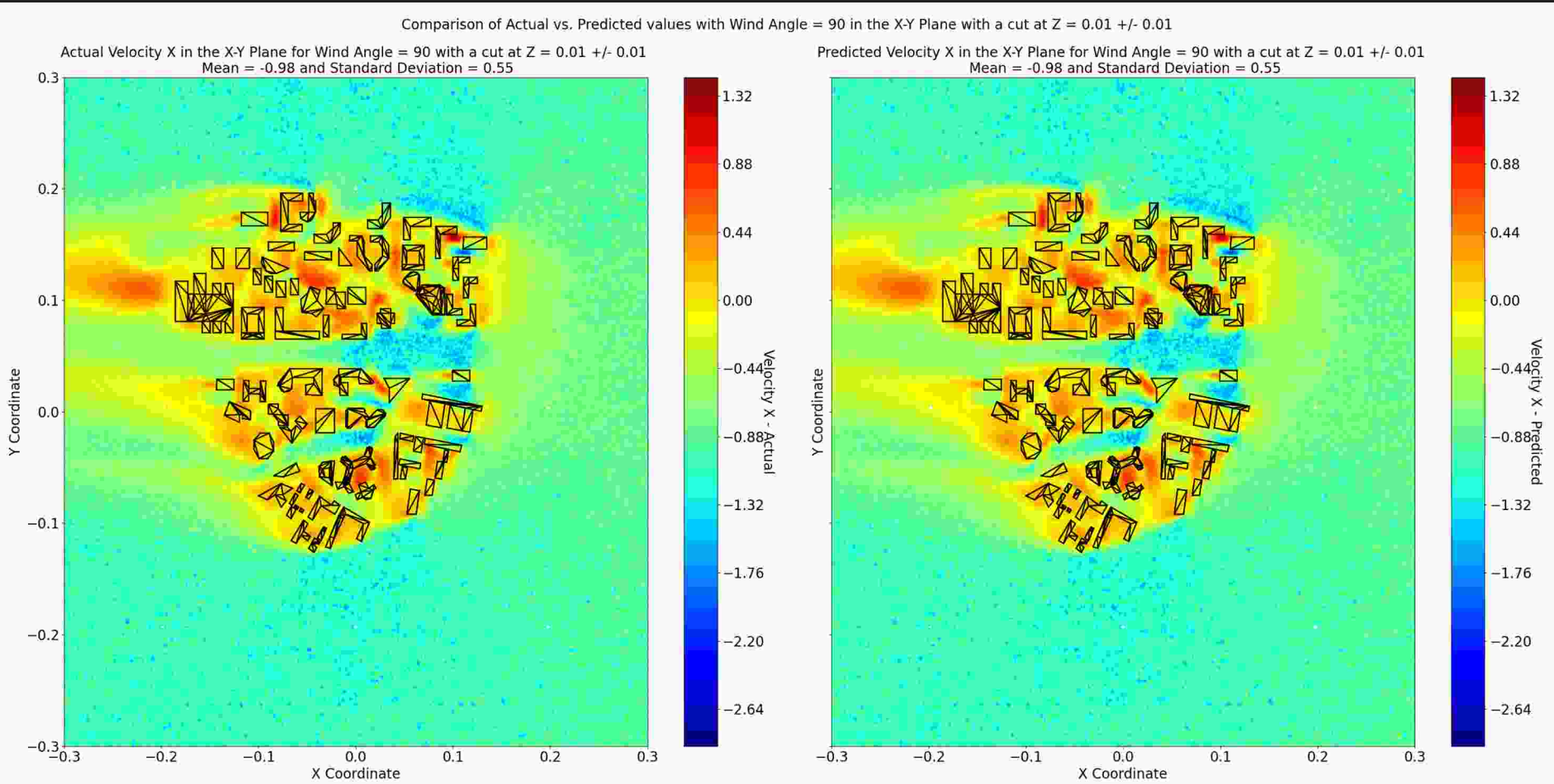




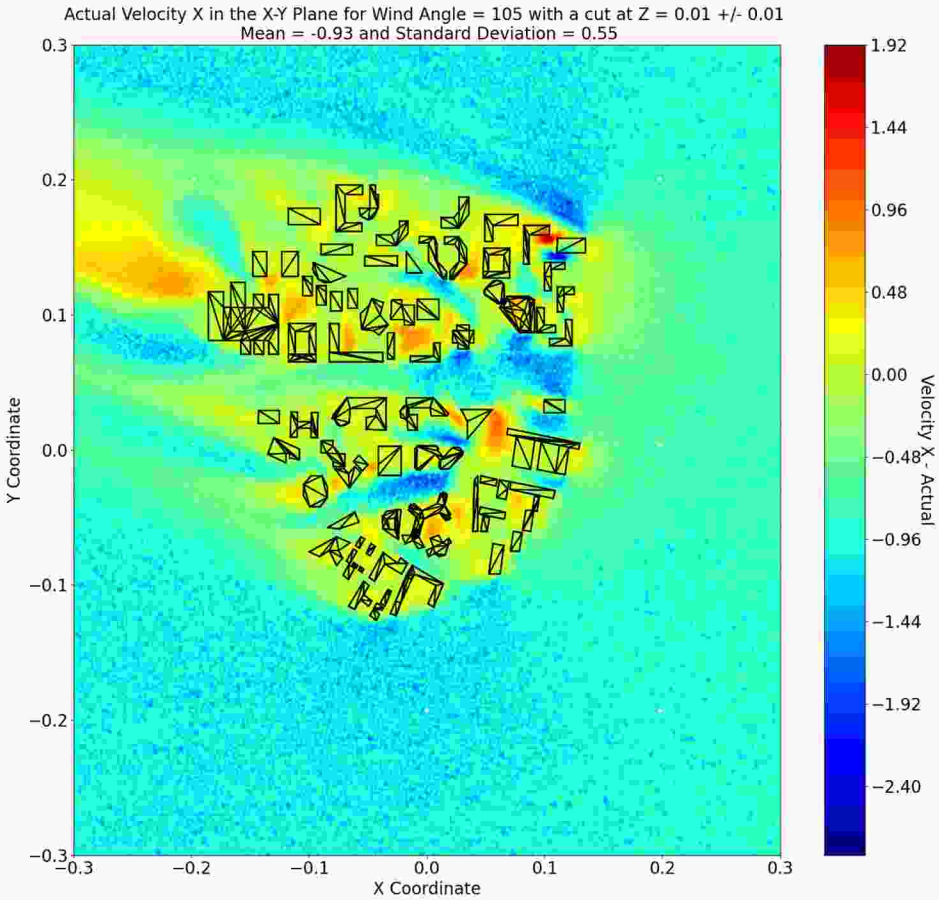
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

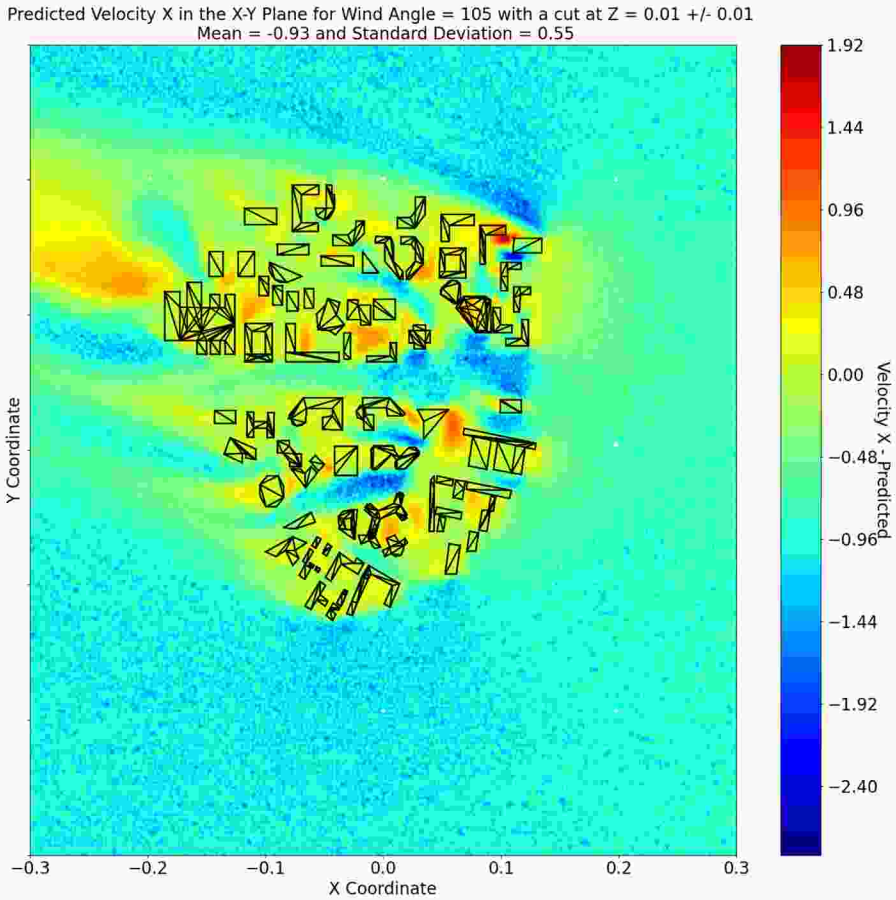




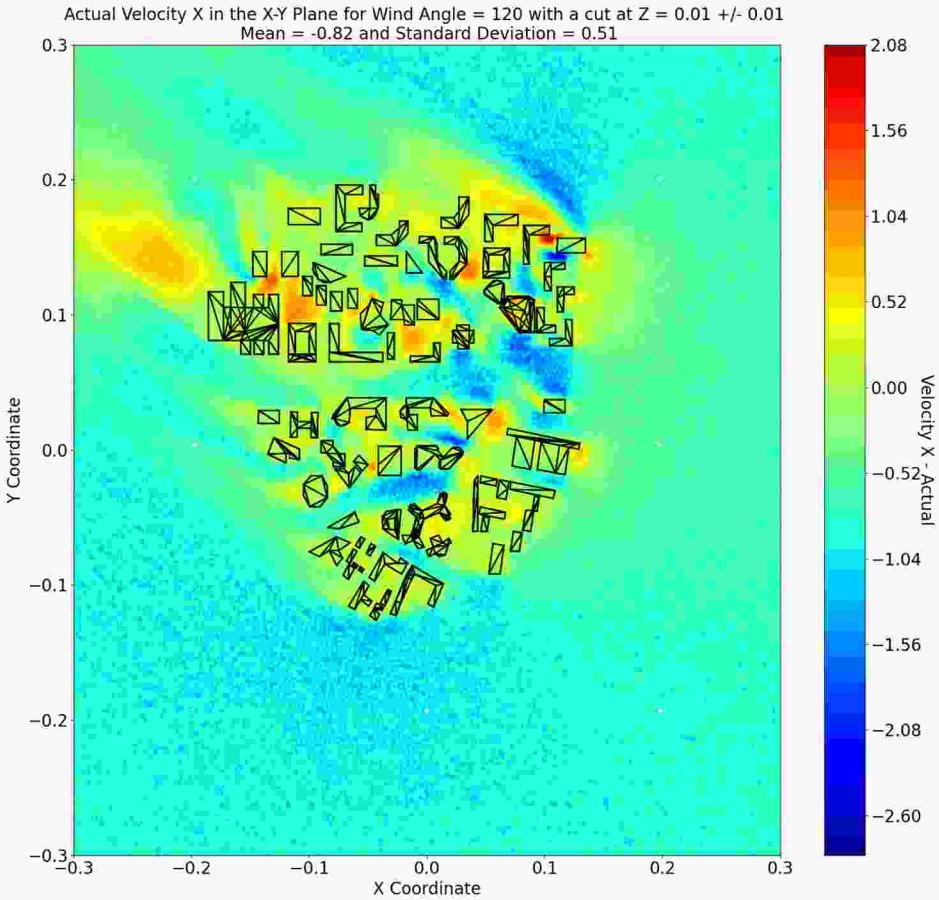

Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual Velocity X in the X-Y Plane for Wind Angle = 90 with a cut at Z = 0.01 +/- 0.01
Mean = -0.98 and Standard Deviation = 0.55
Predicted Velocity X in the X-Y Plane for Wind Angle = 90 with a cut at Z = 0.01 +/- 0.01
Mean = -0.98 and Standard Deviation = 0.55
Y Coordinate
X Coordinate
Velocity X - Actual
Velocity X - Predicted
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
1.32
0.88
0.44
0.00
−0.44
−0.88
−1.32
−1.76
−2.20
−2.64

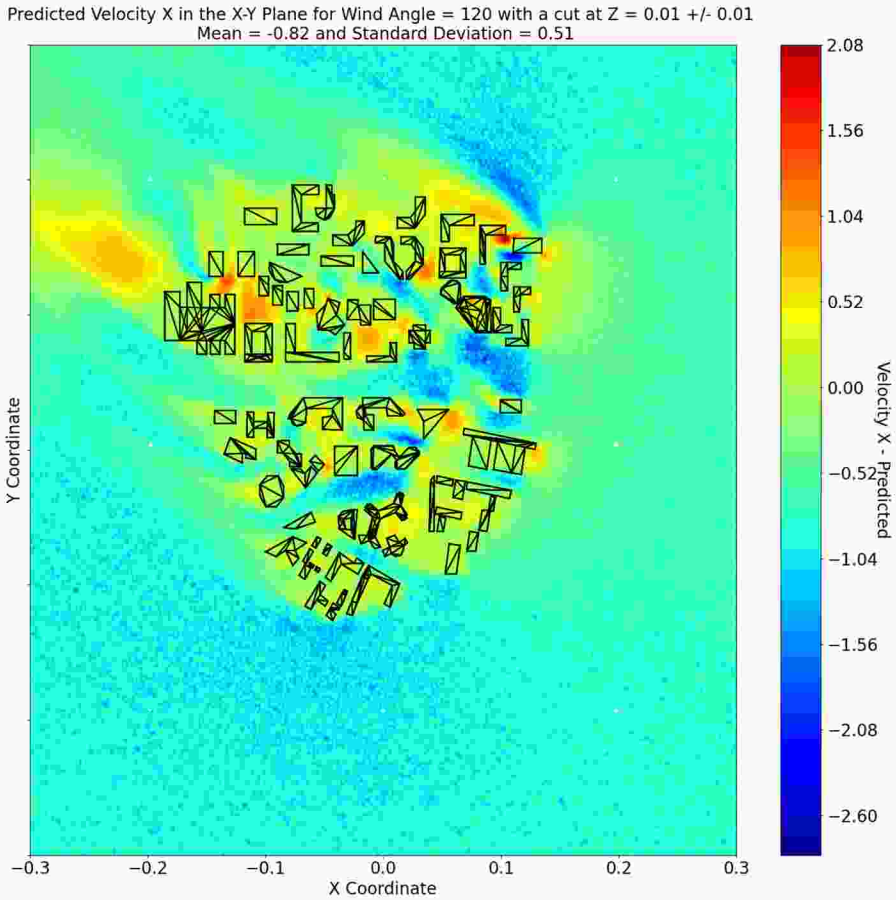
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



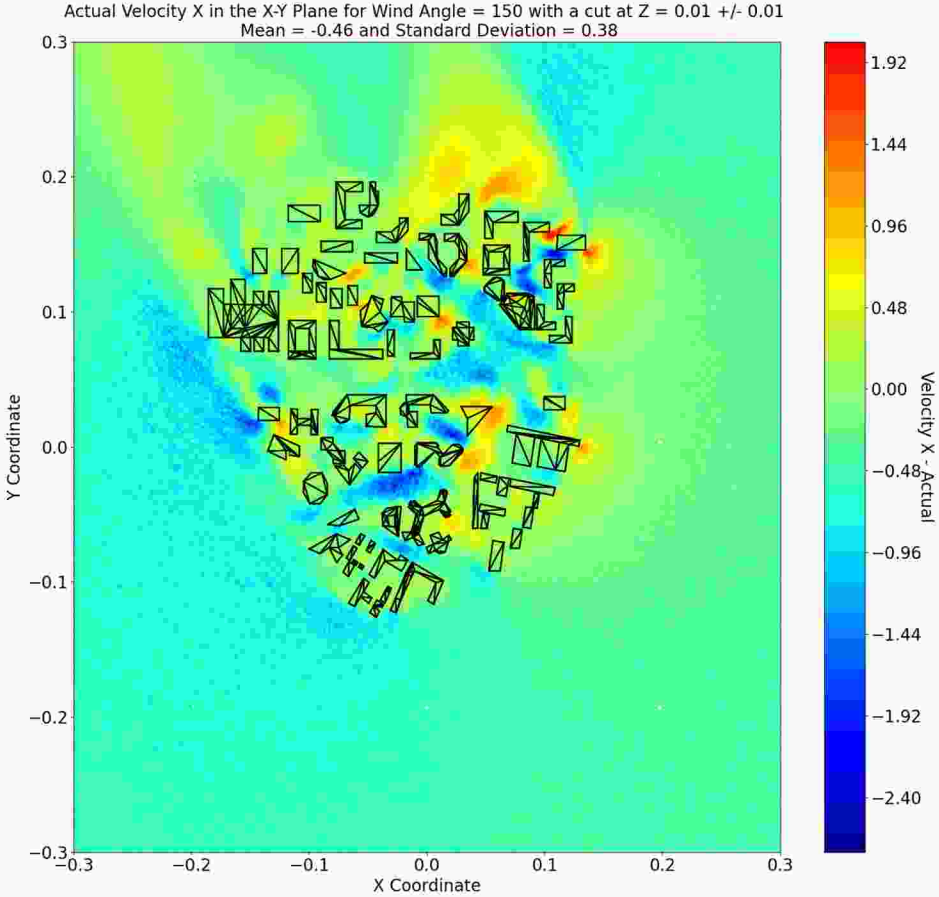


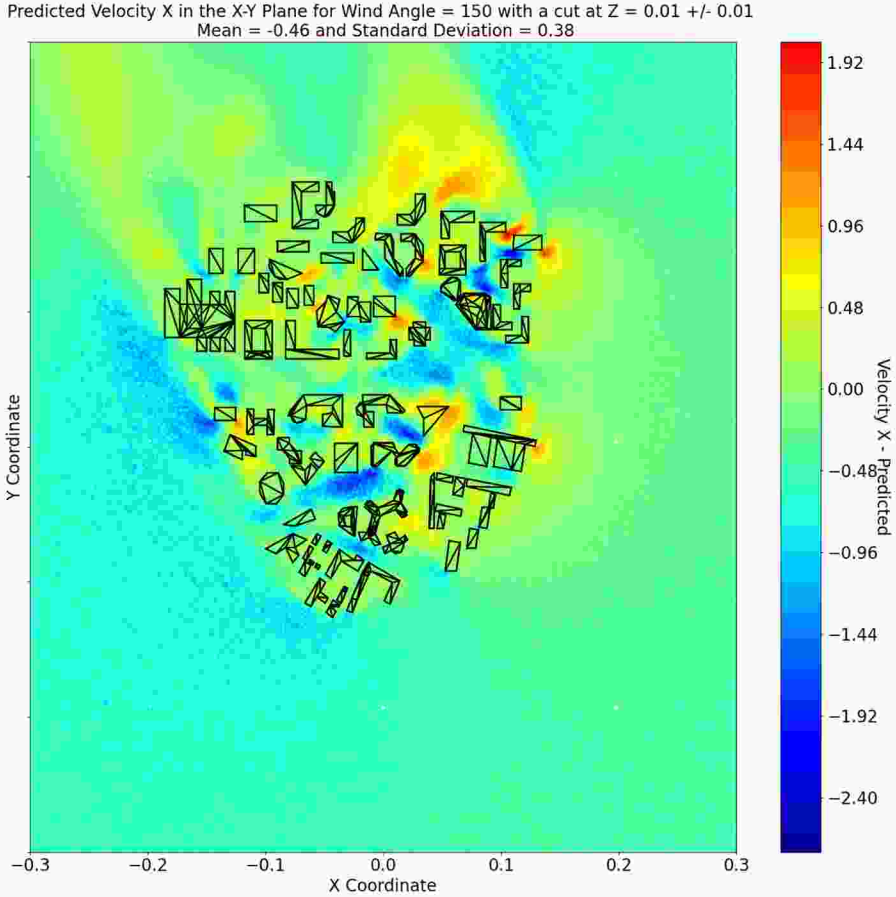
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



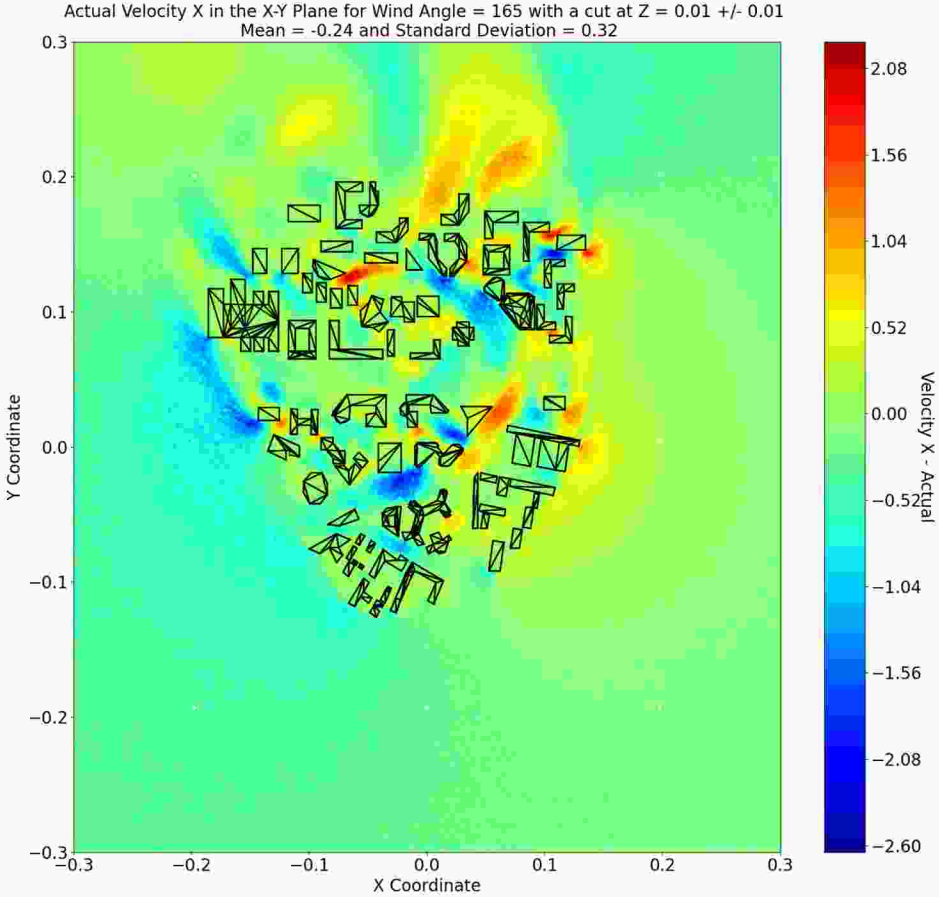


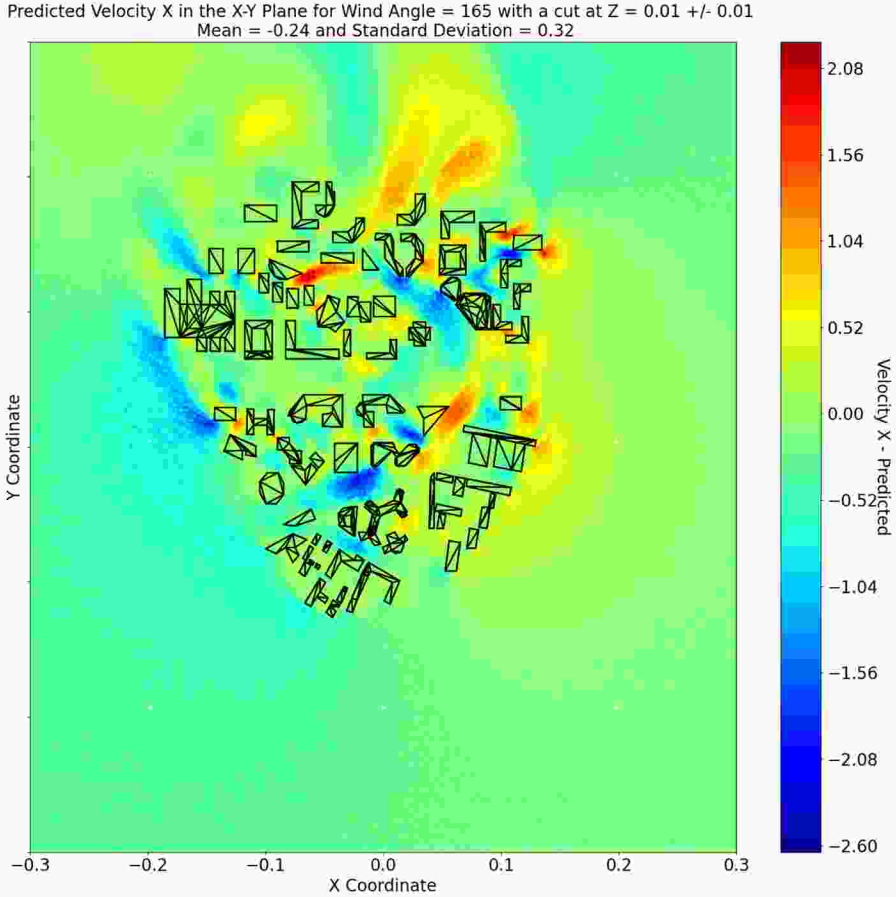
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



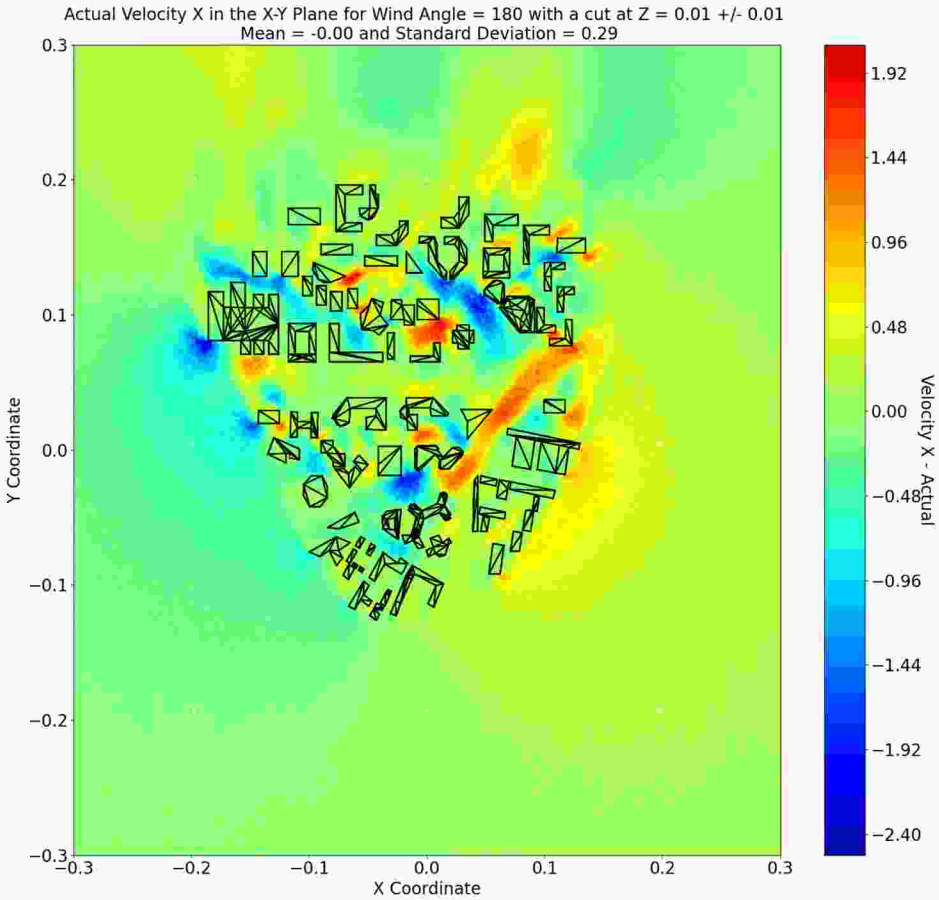


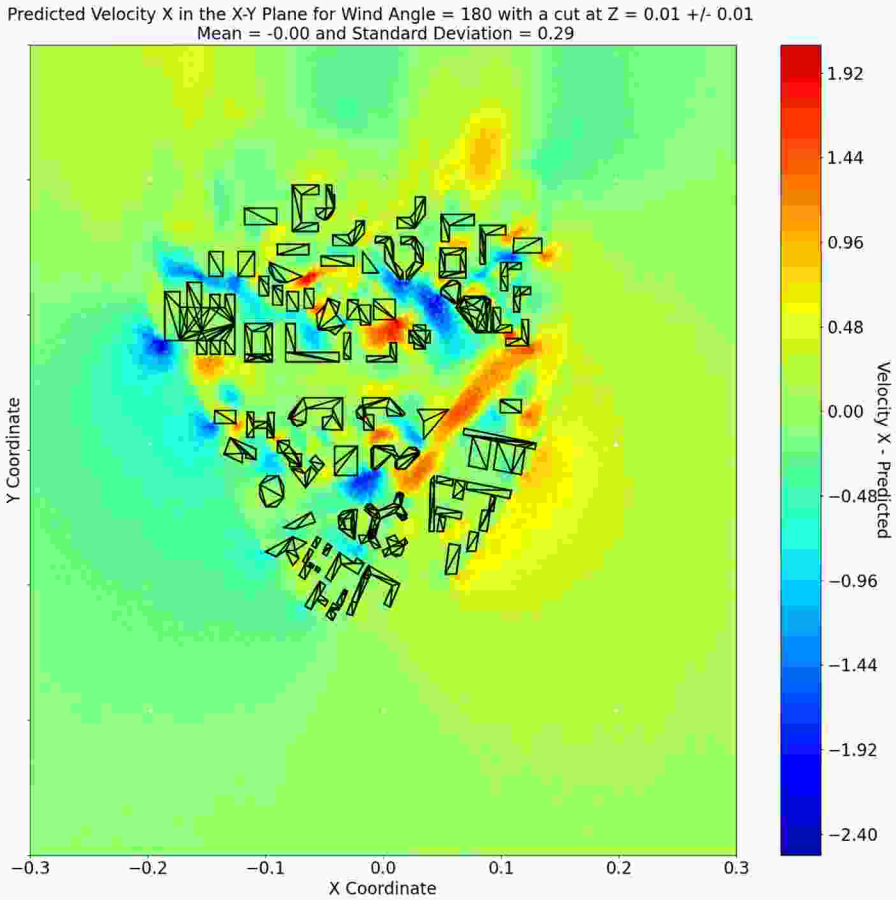
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



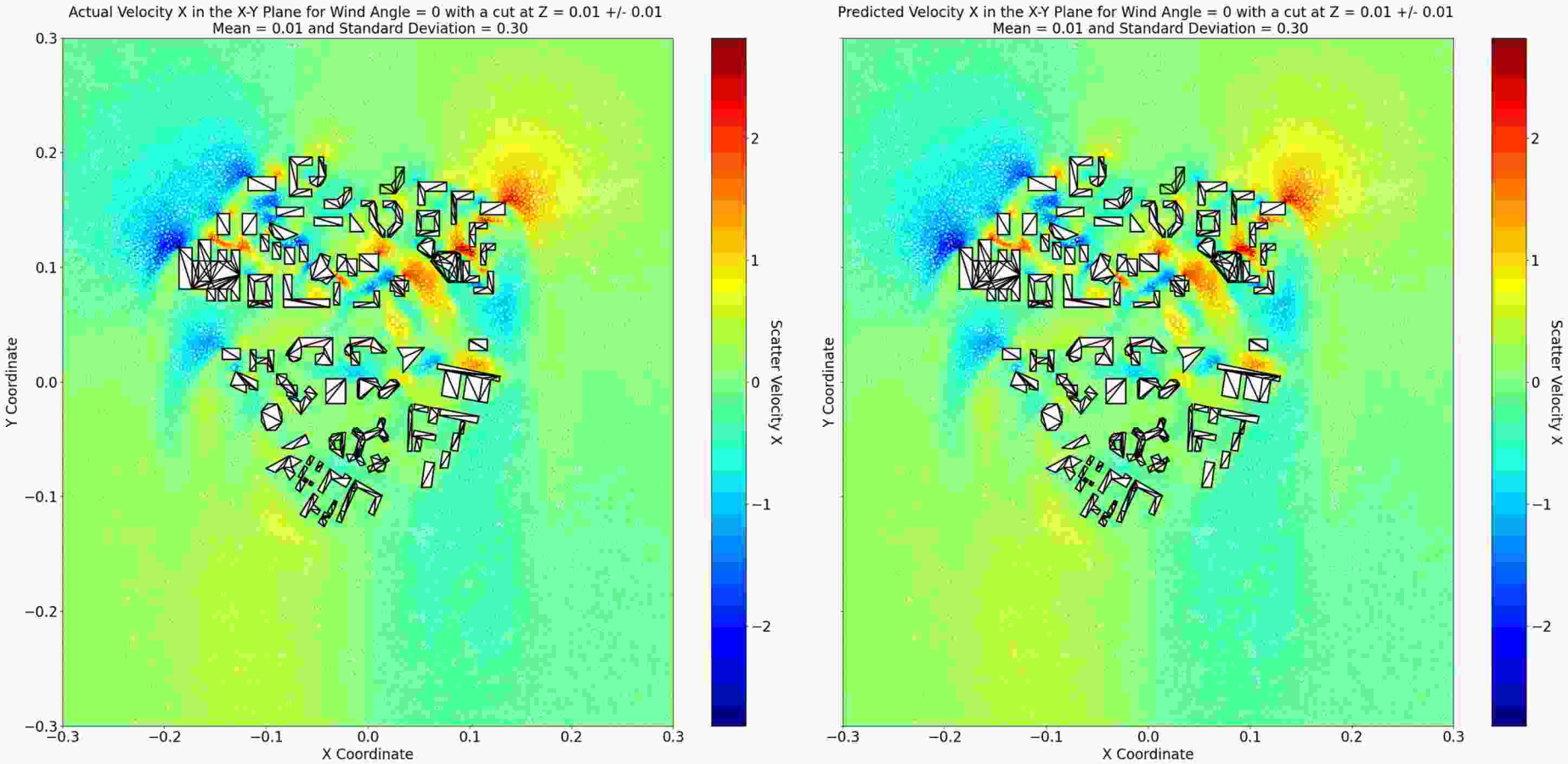


Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

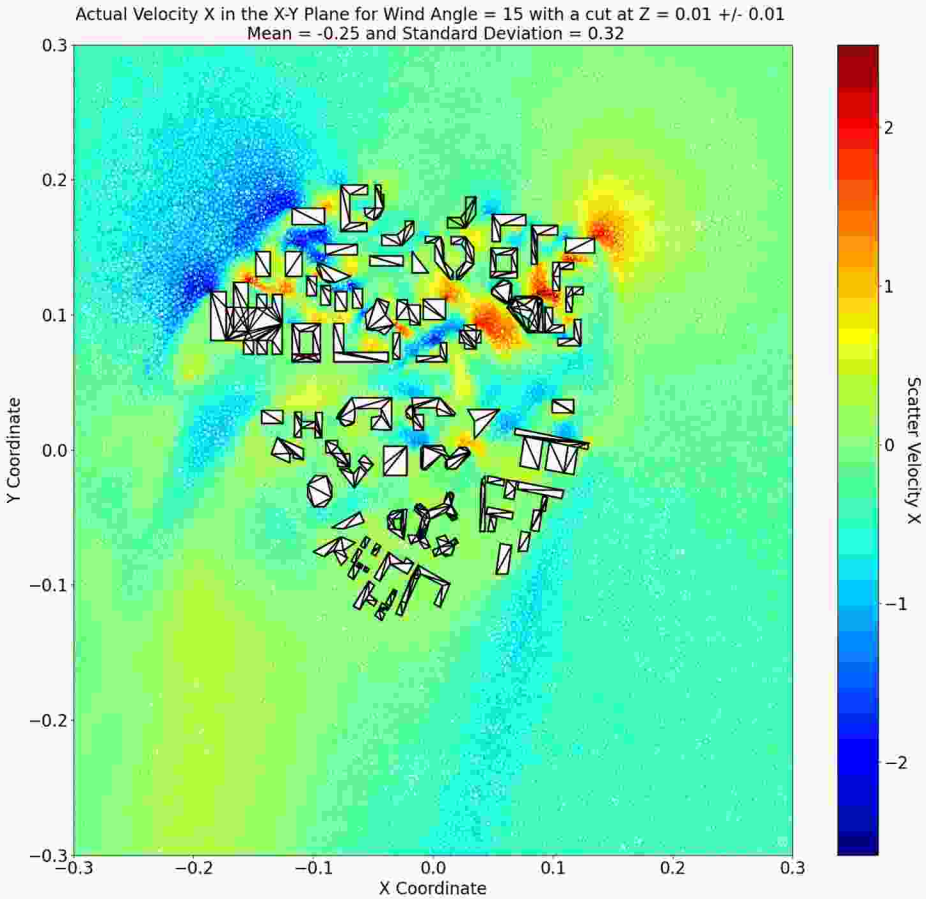


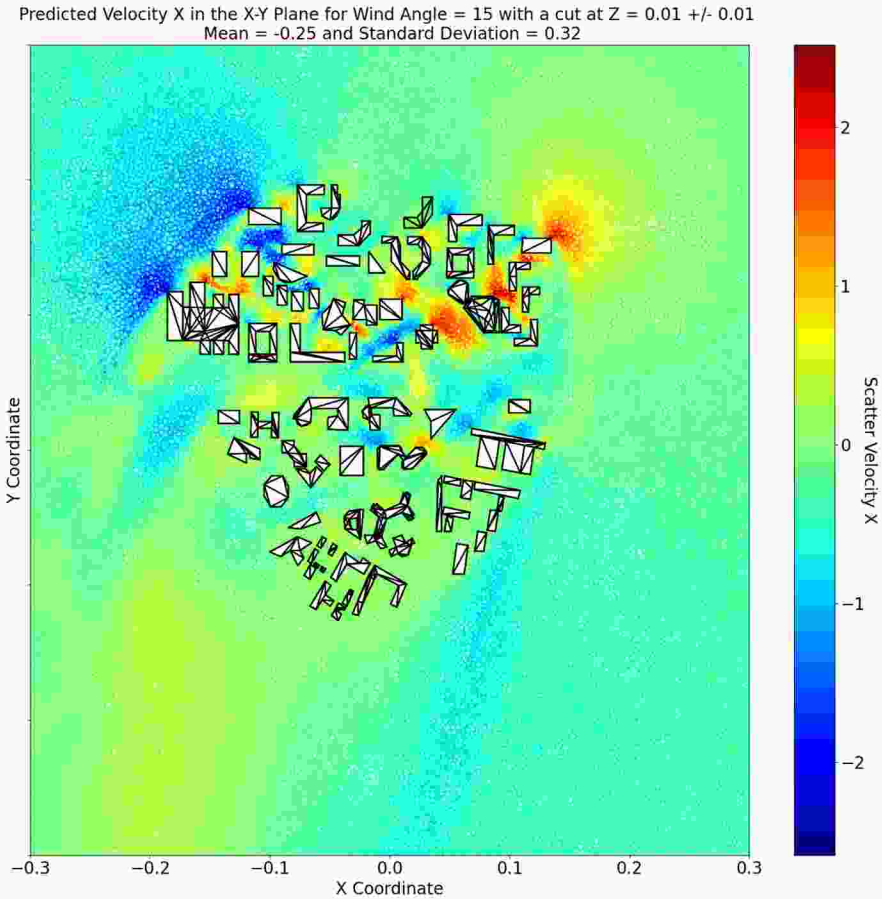


Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

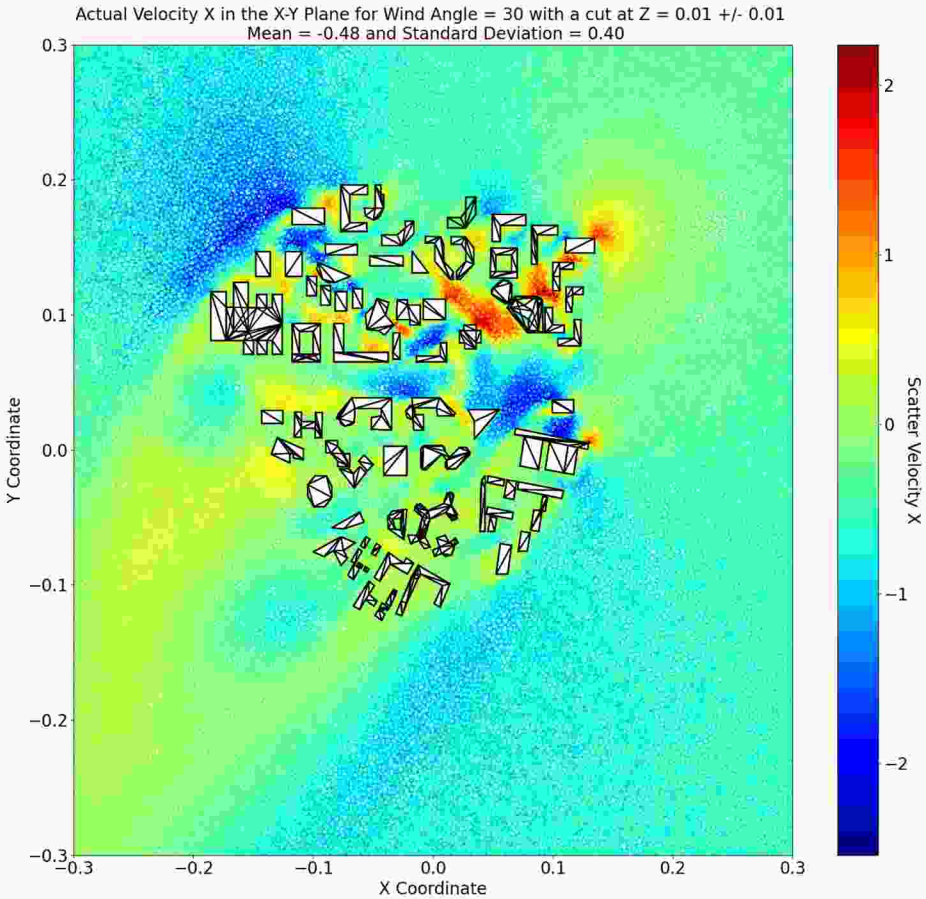


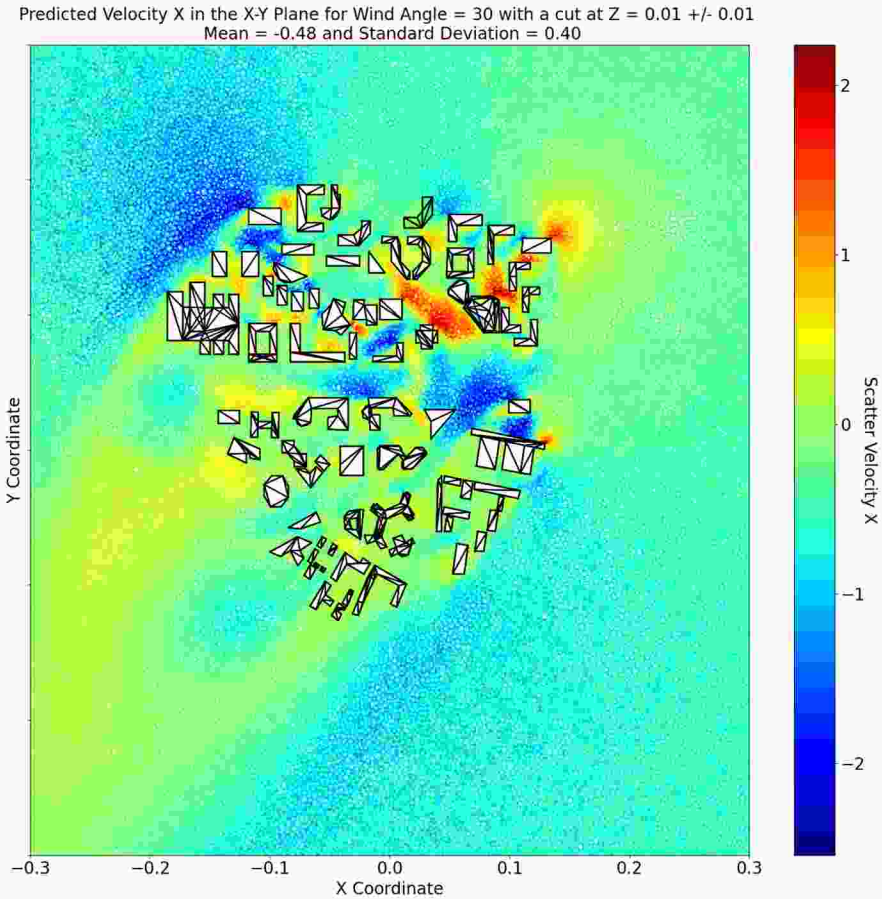
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



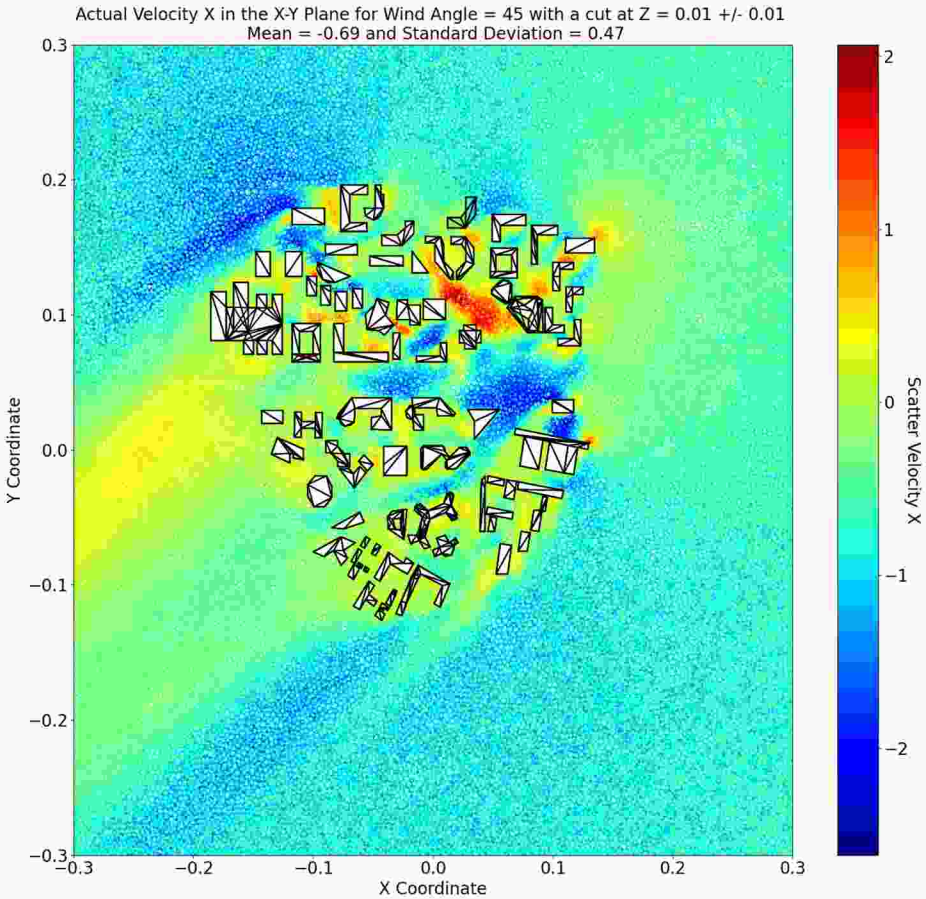


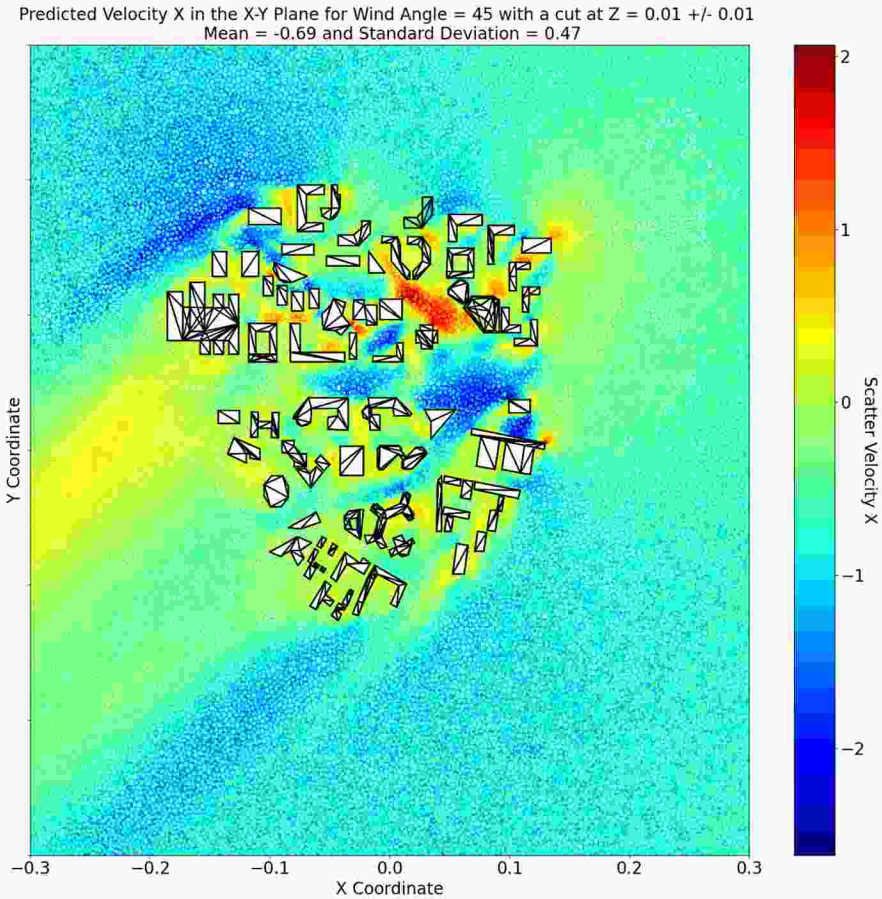
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



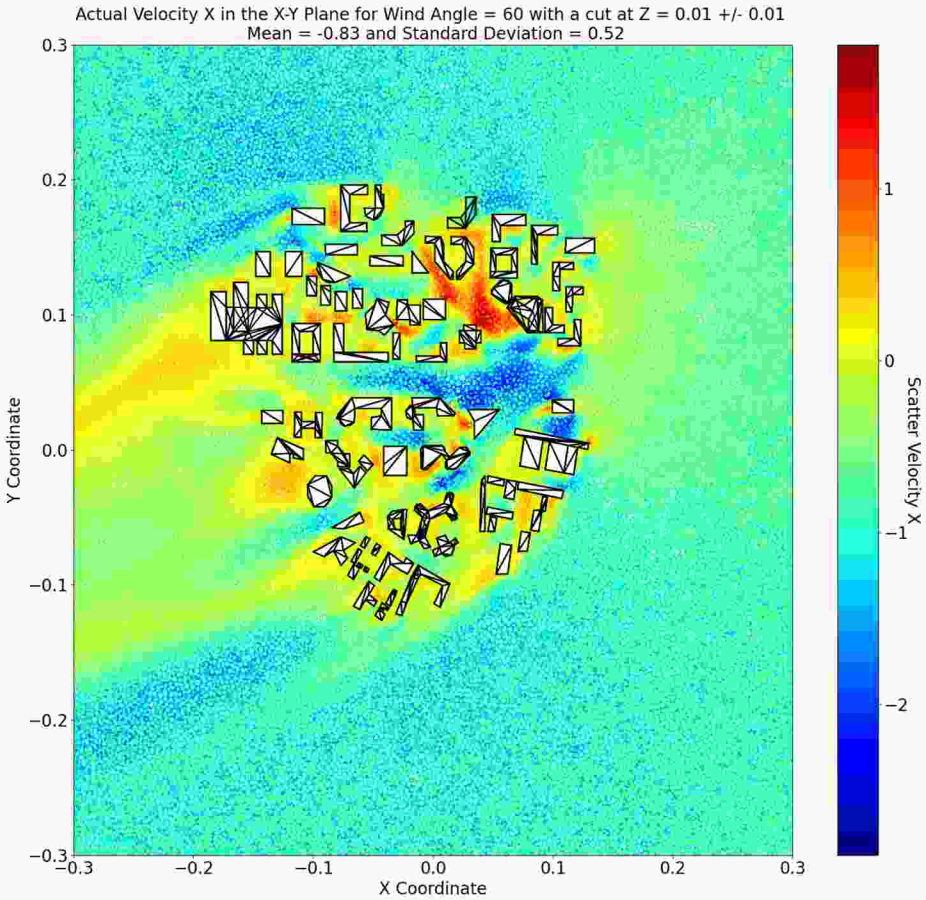


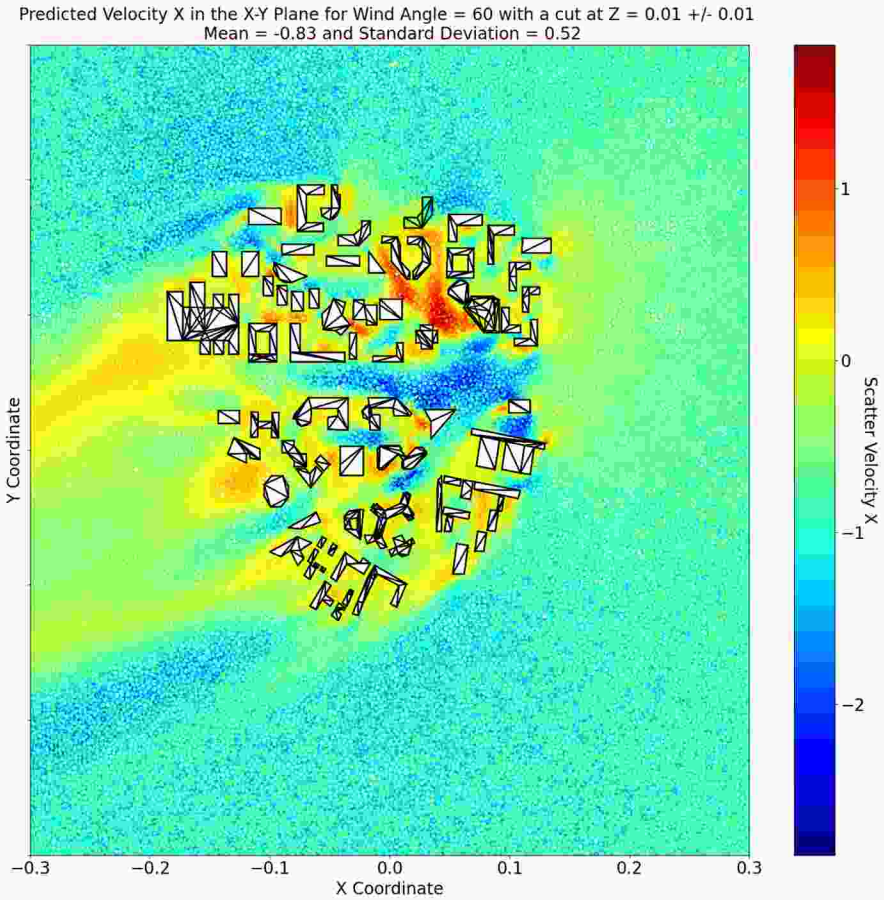
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



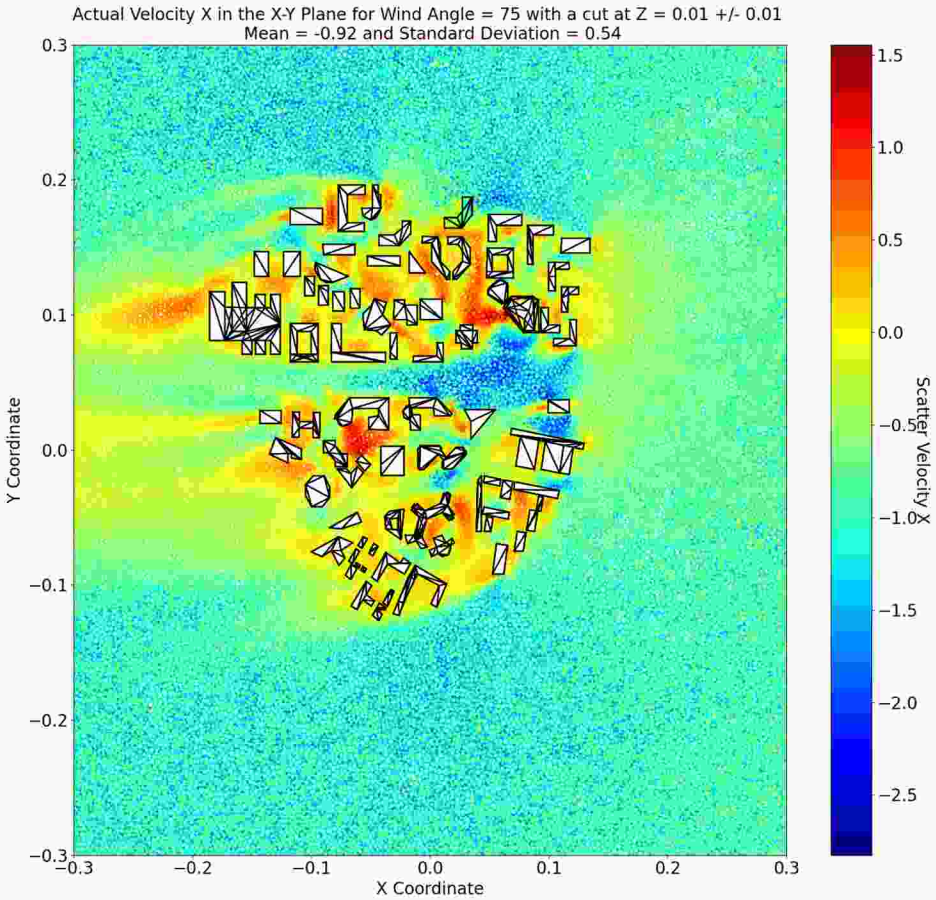


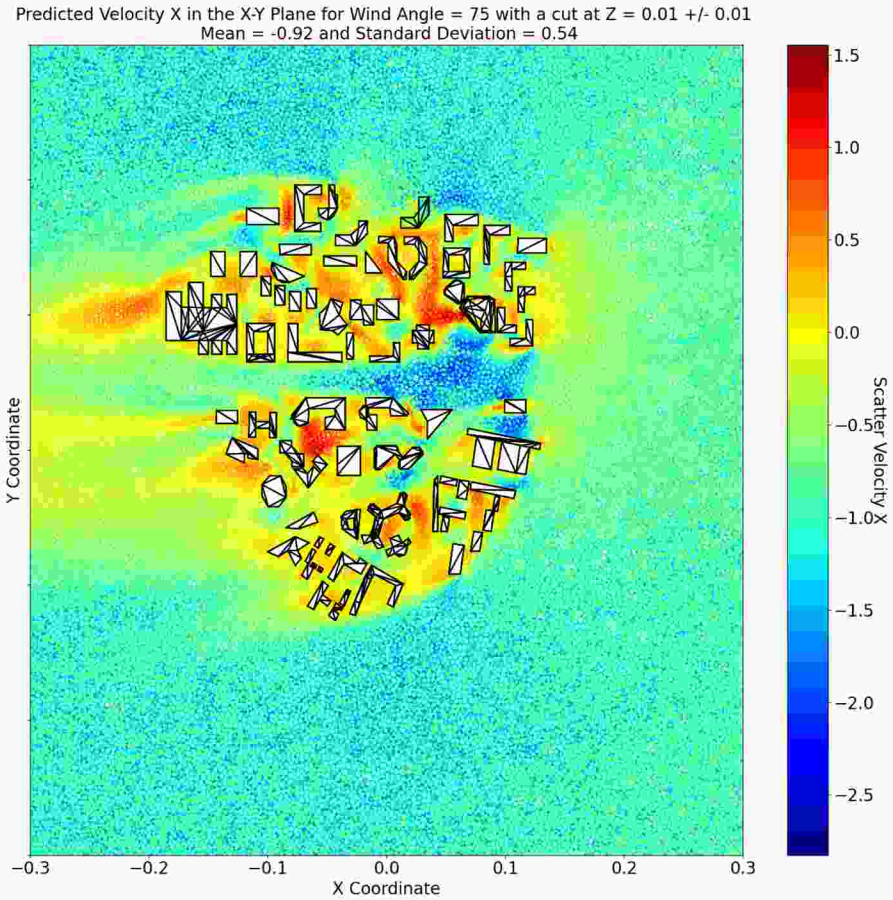
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



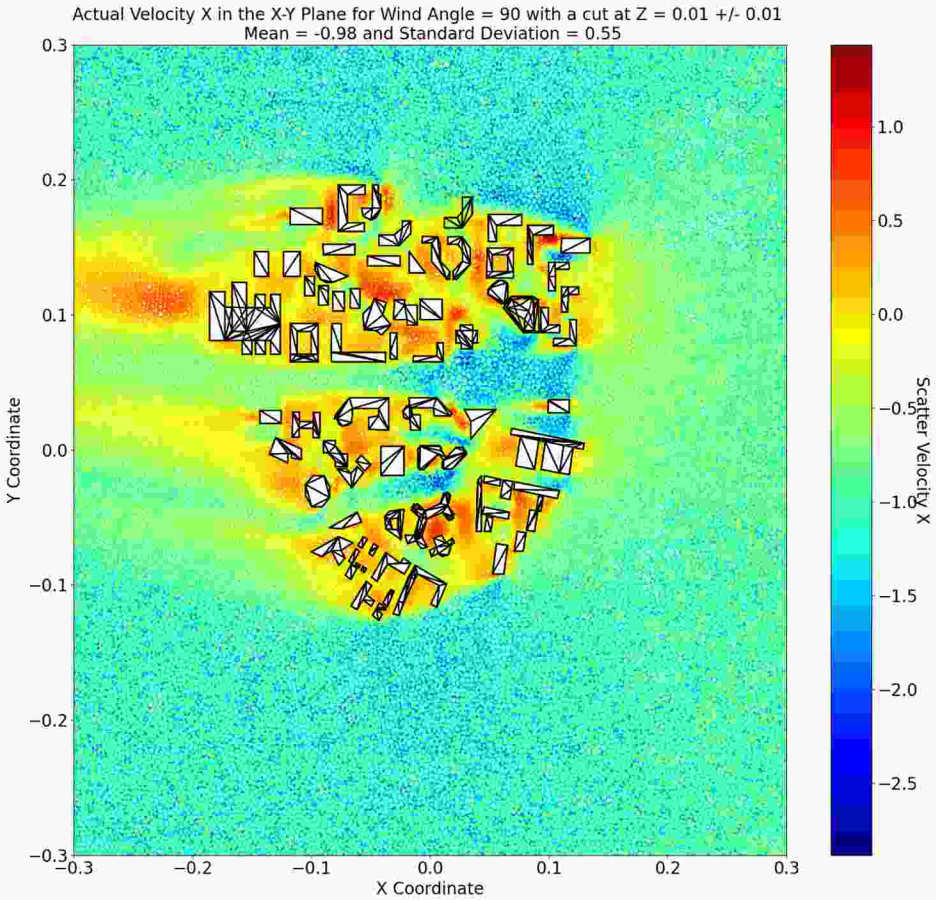


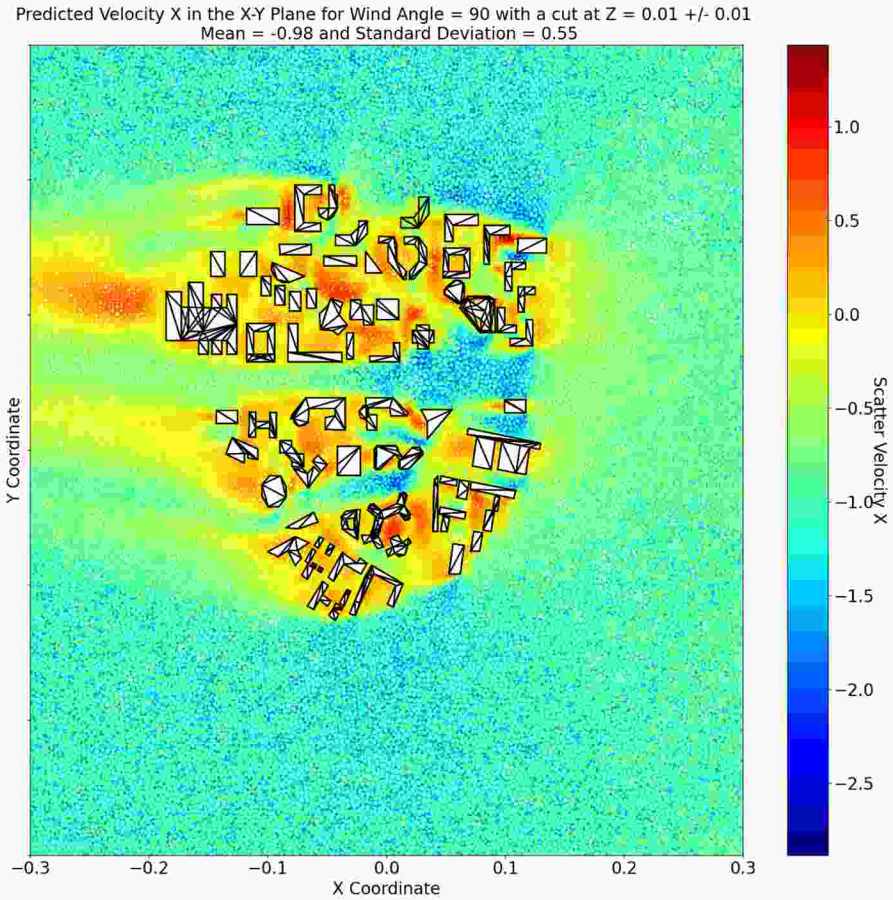
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



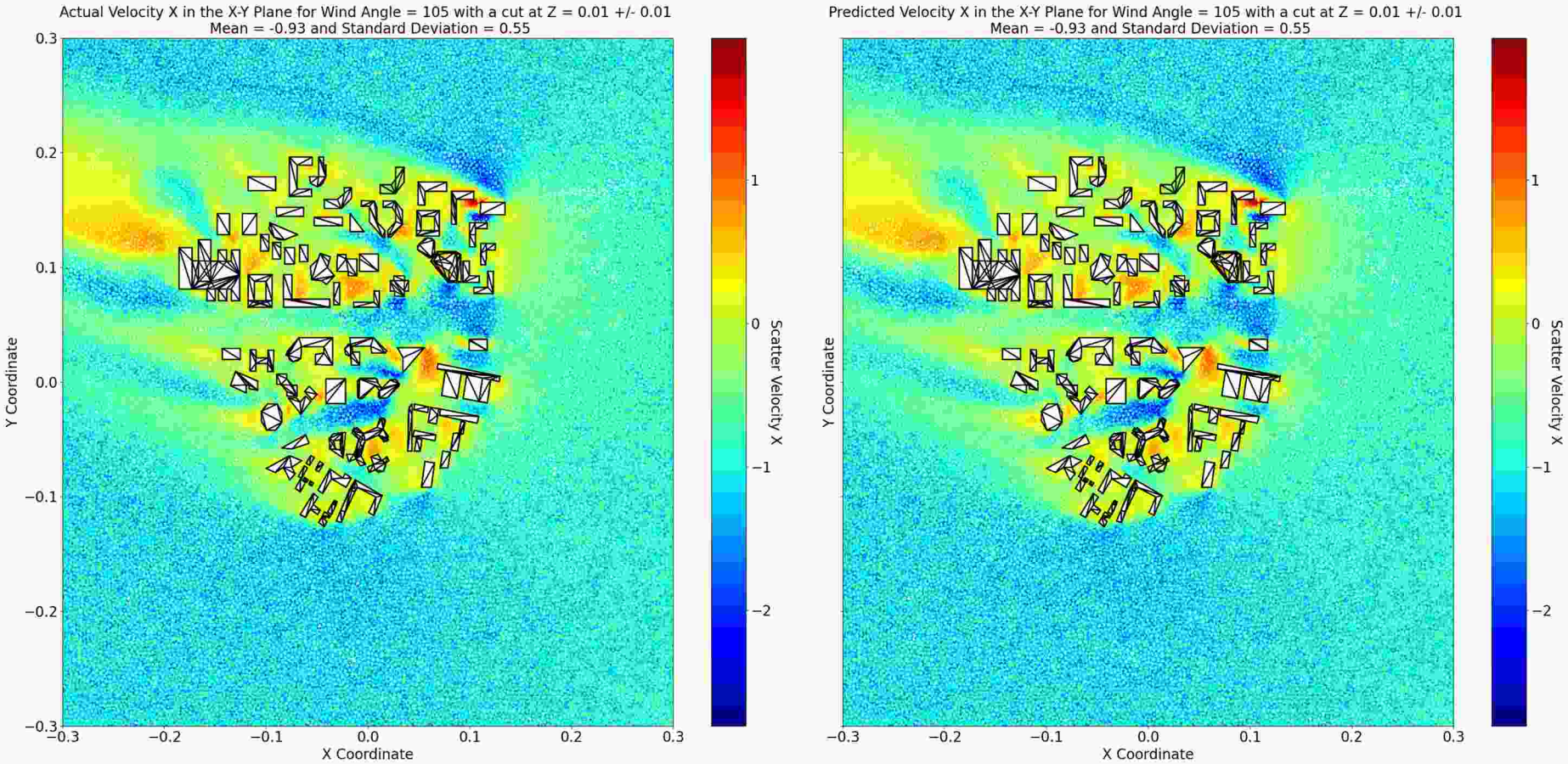


Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

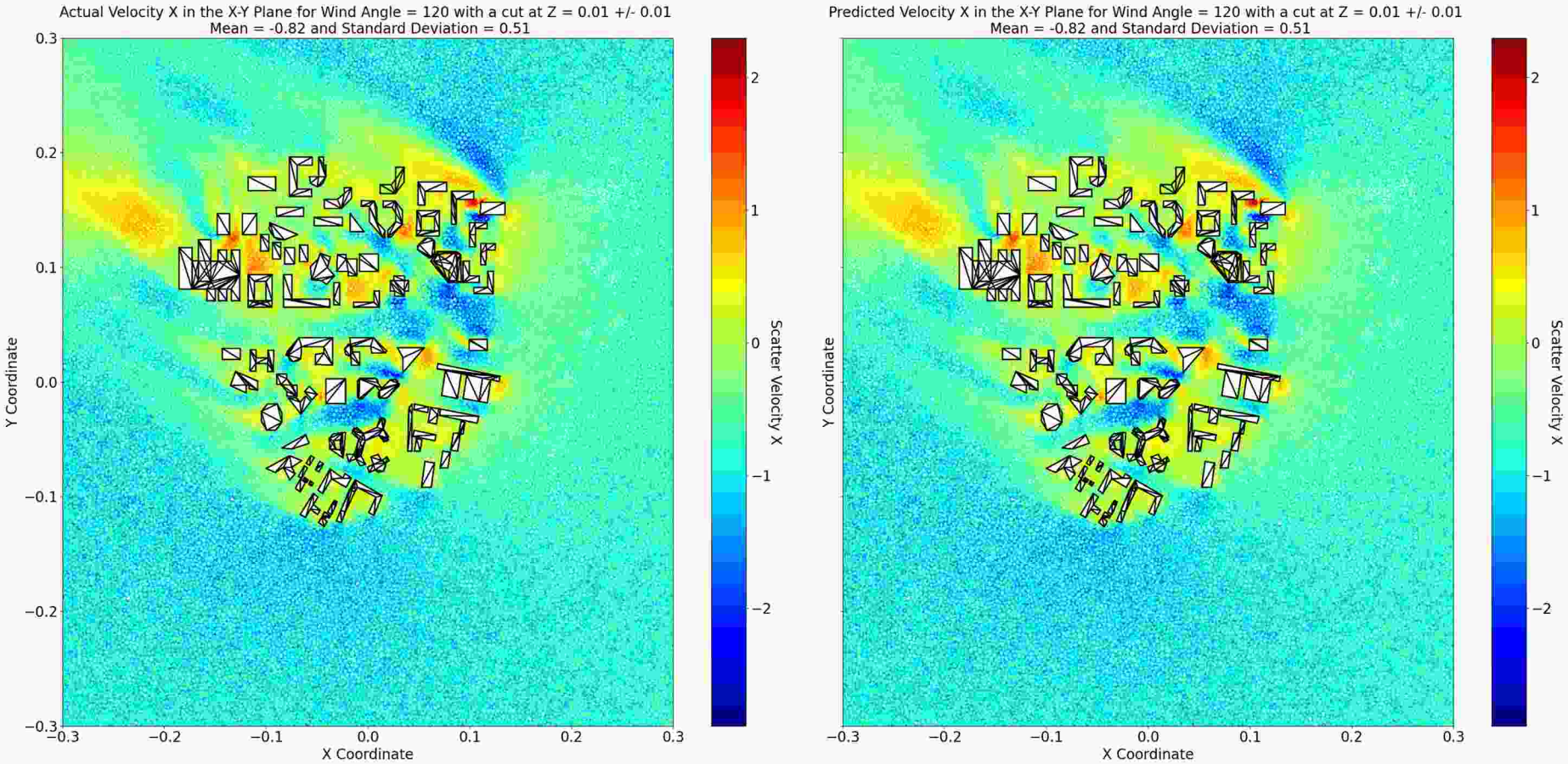




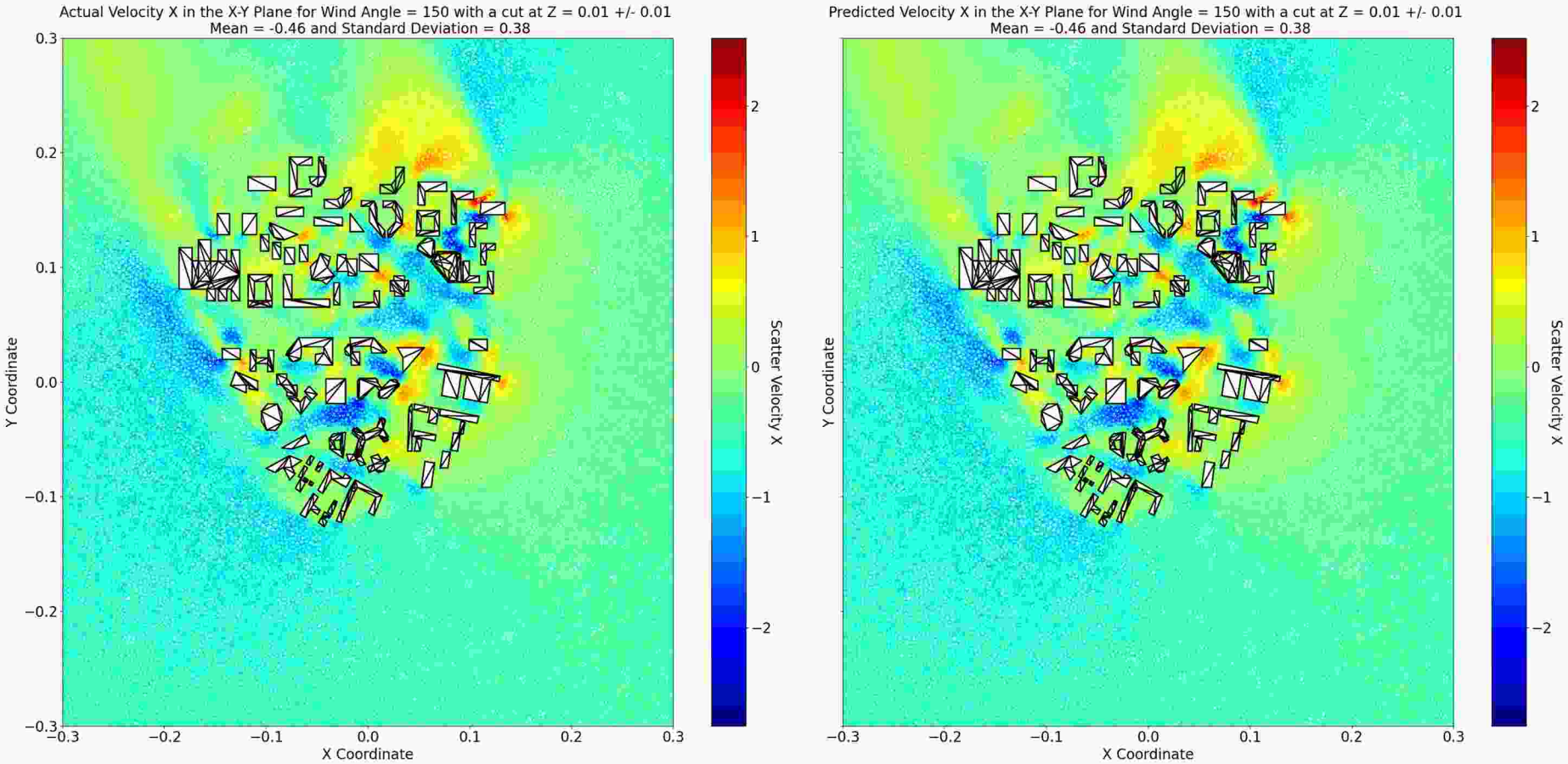
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



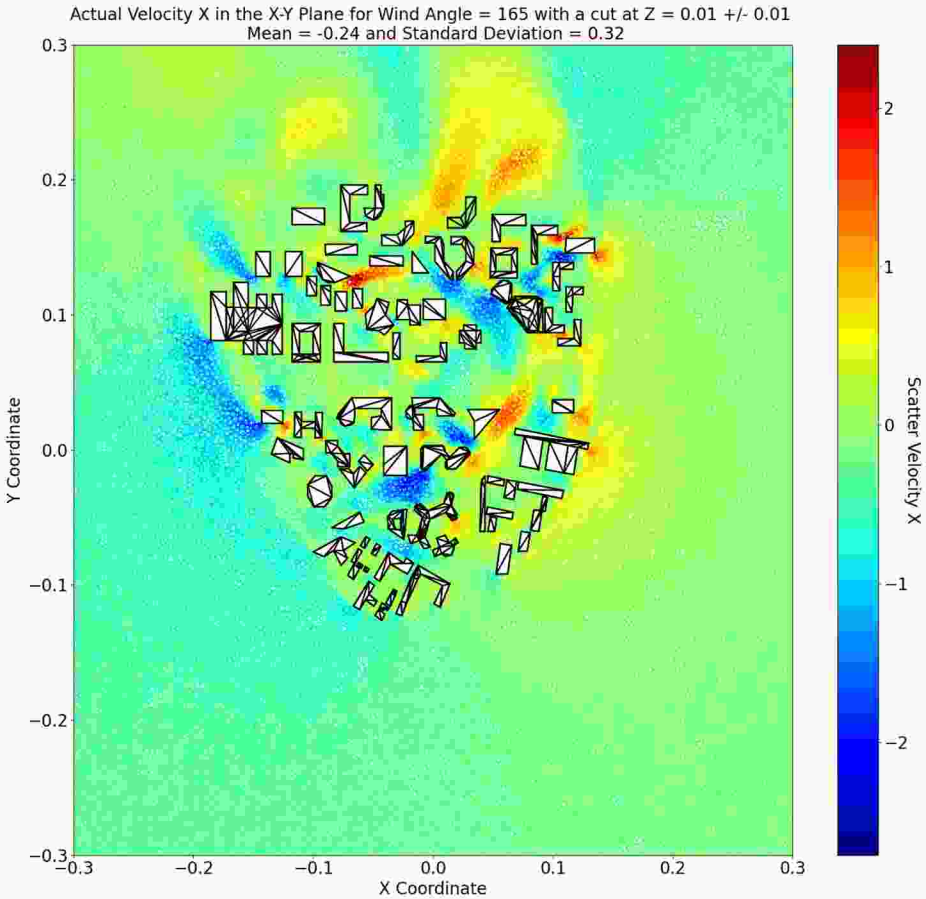
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

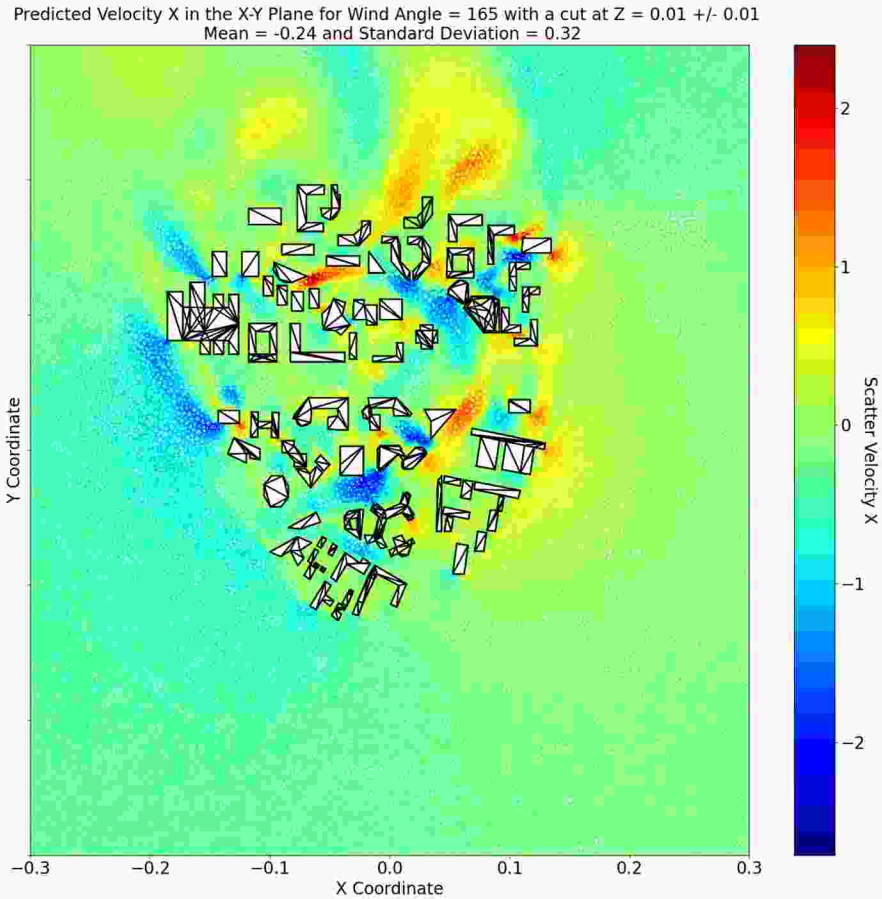


Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

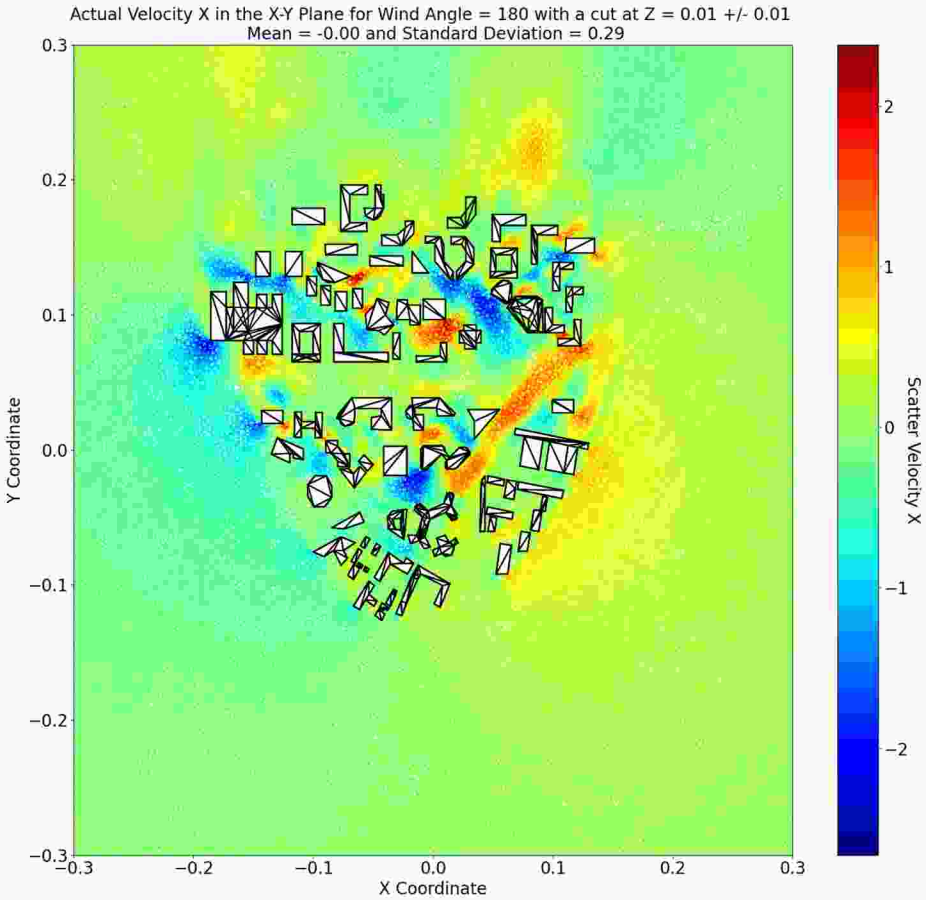


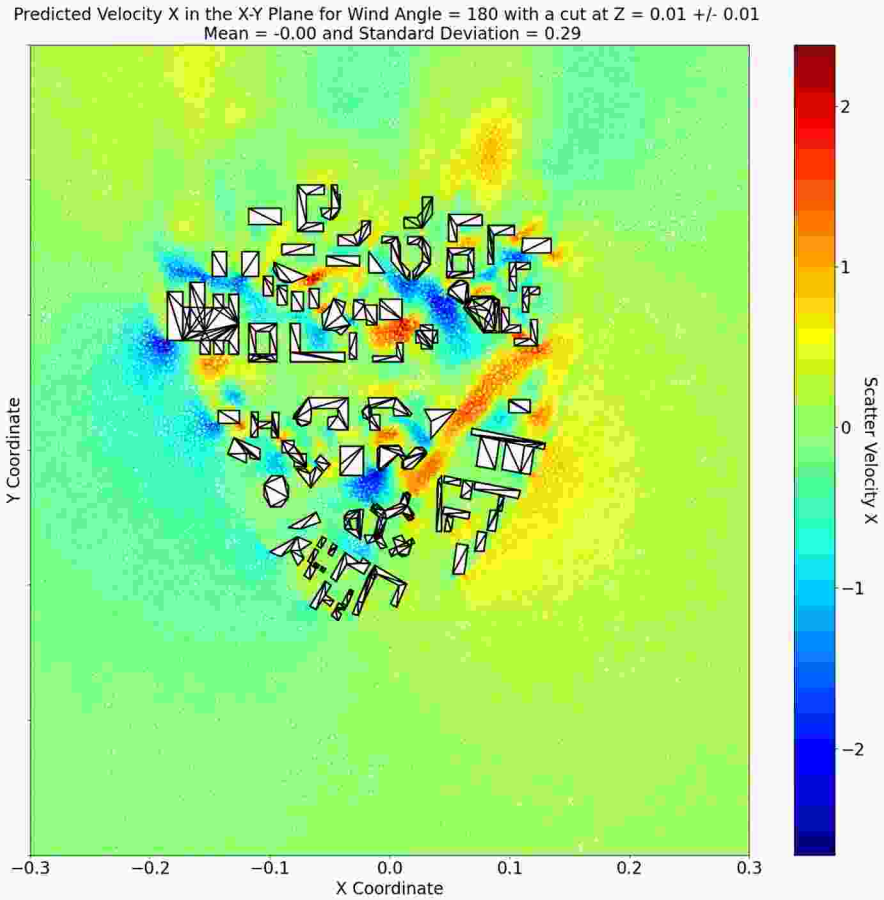
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

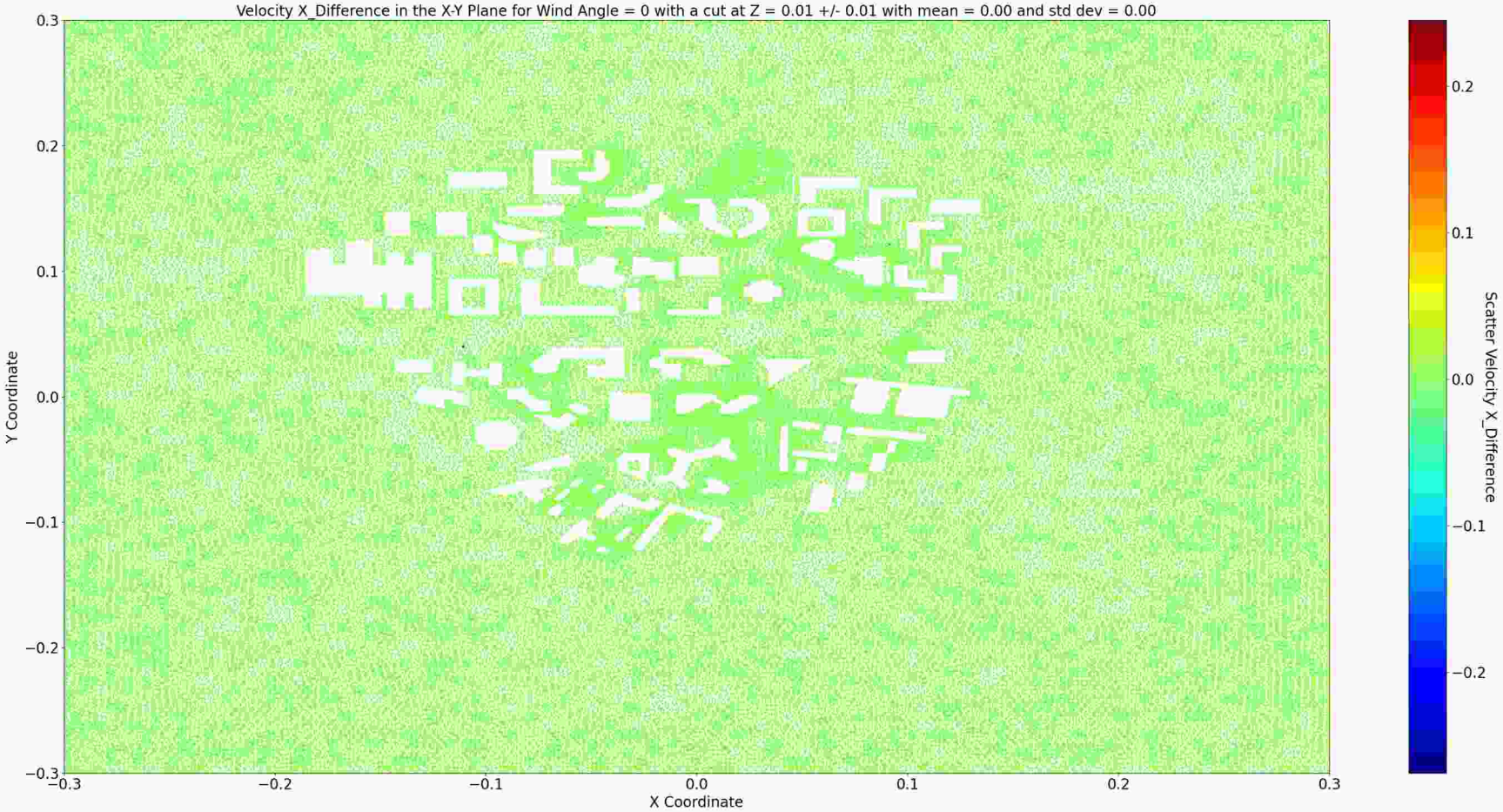


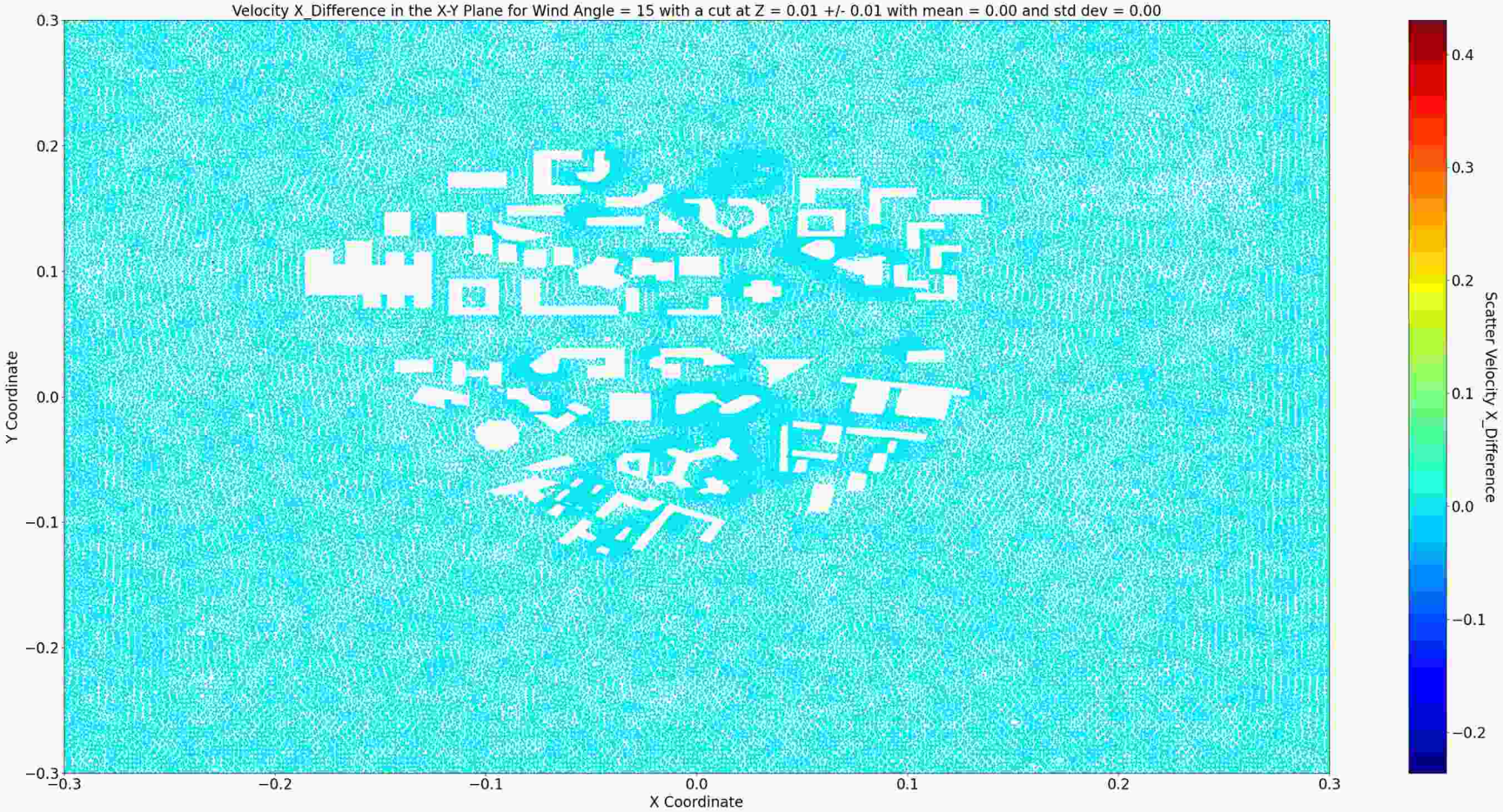


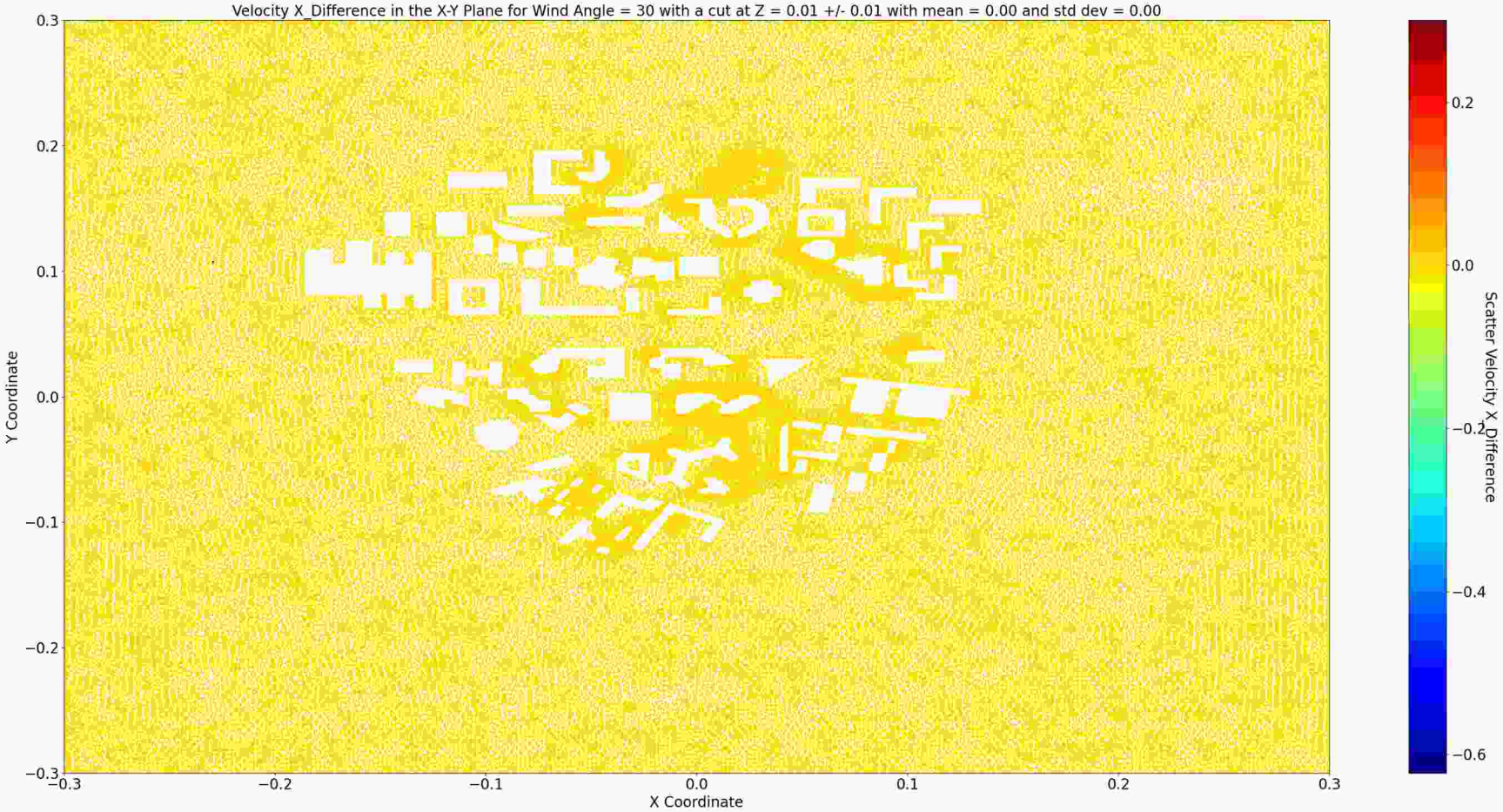
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

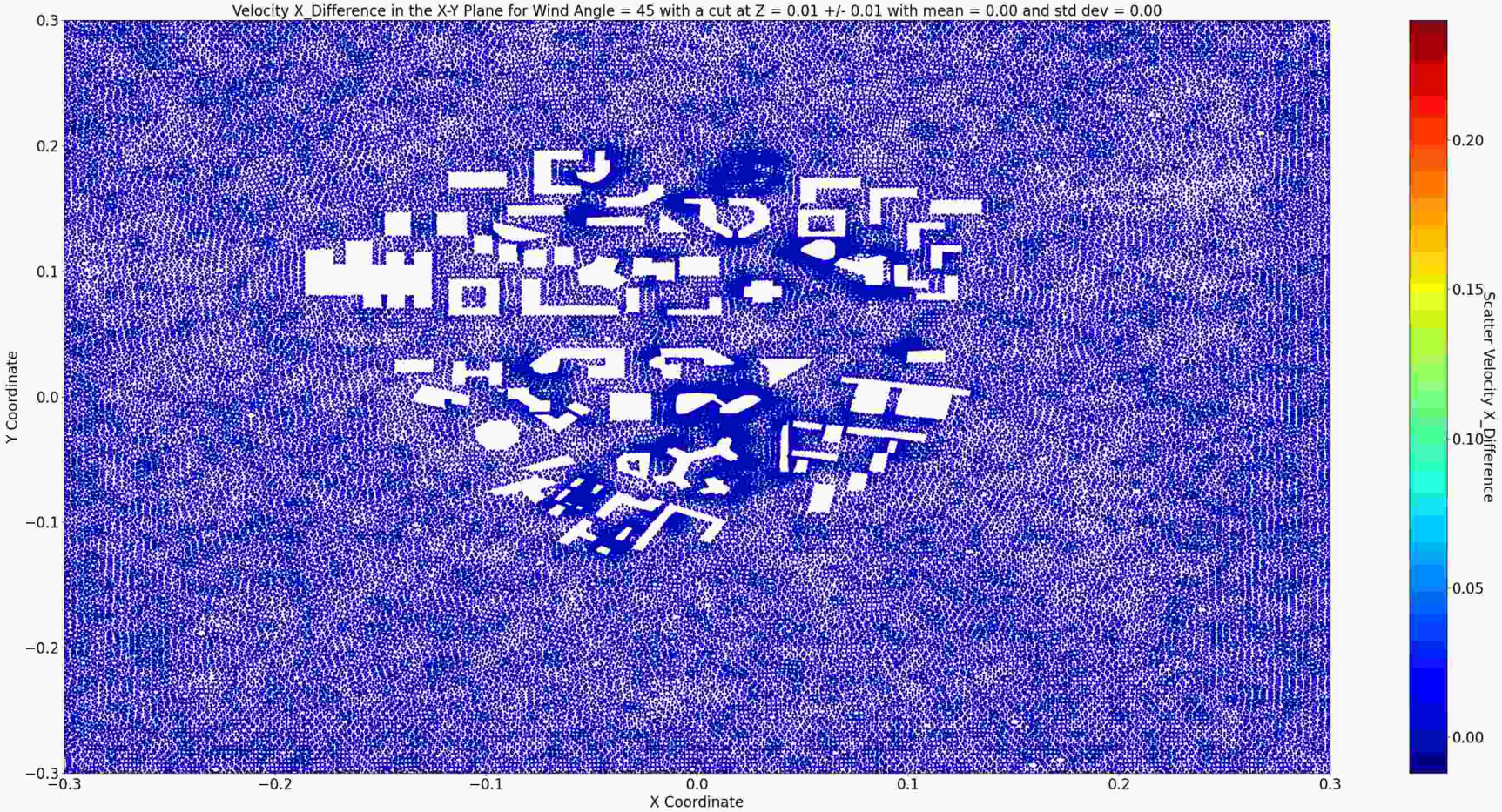


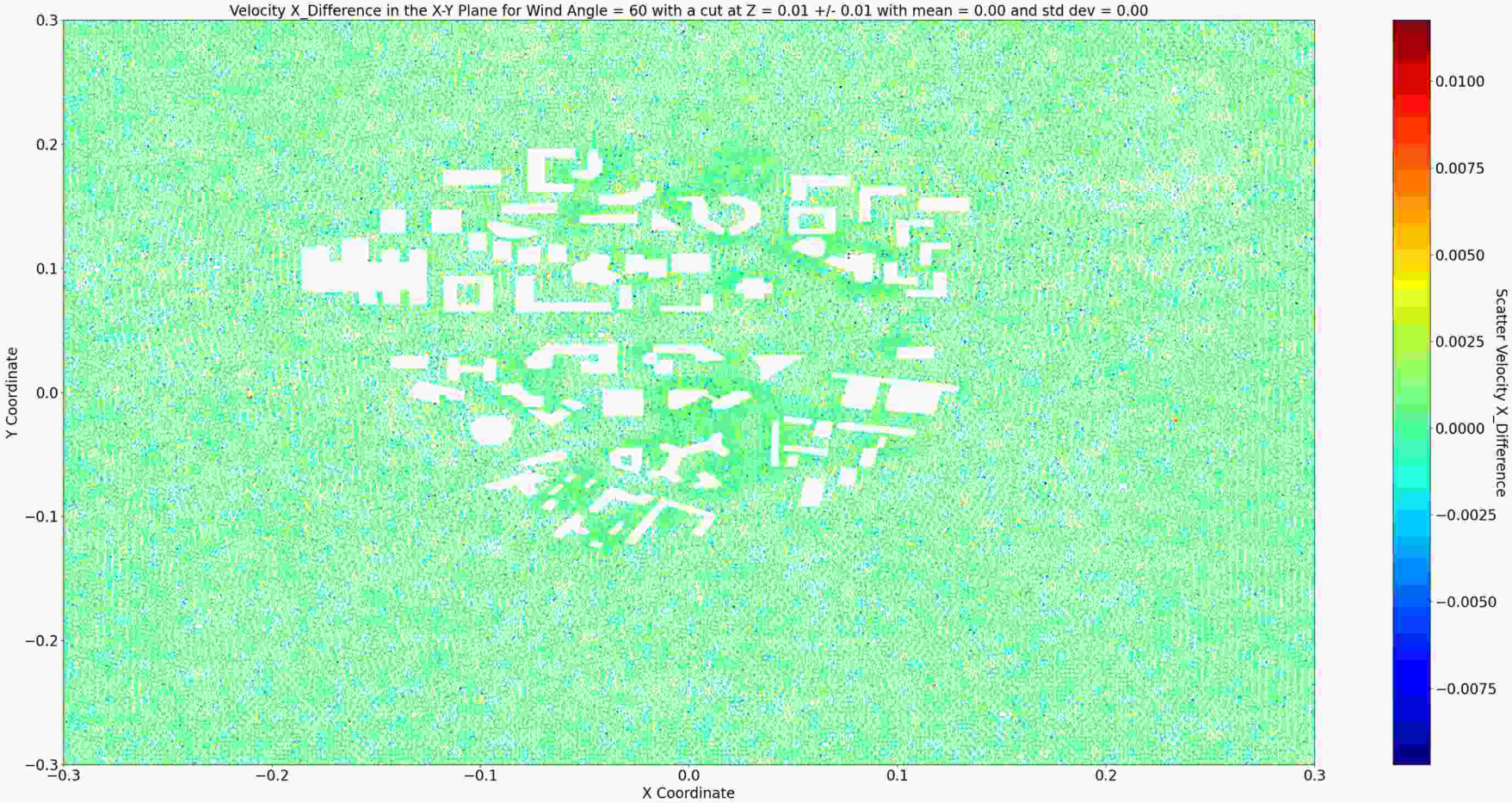


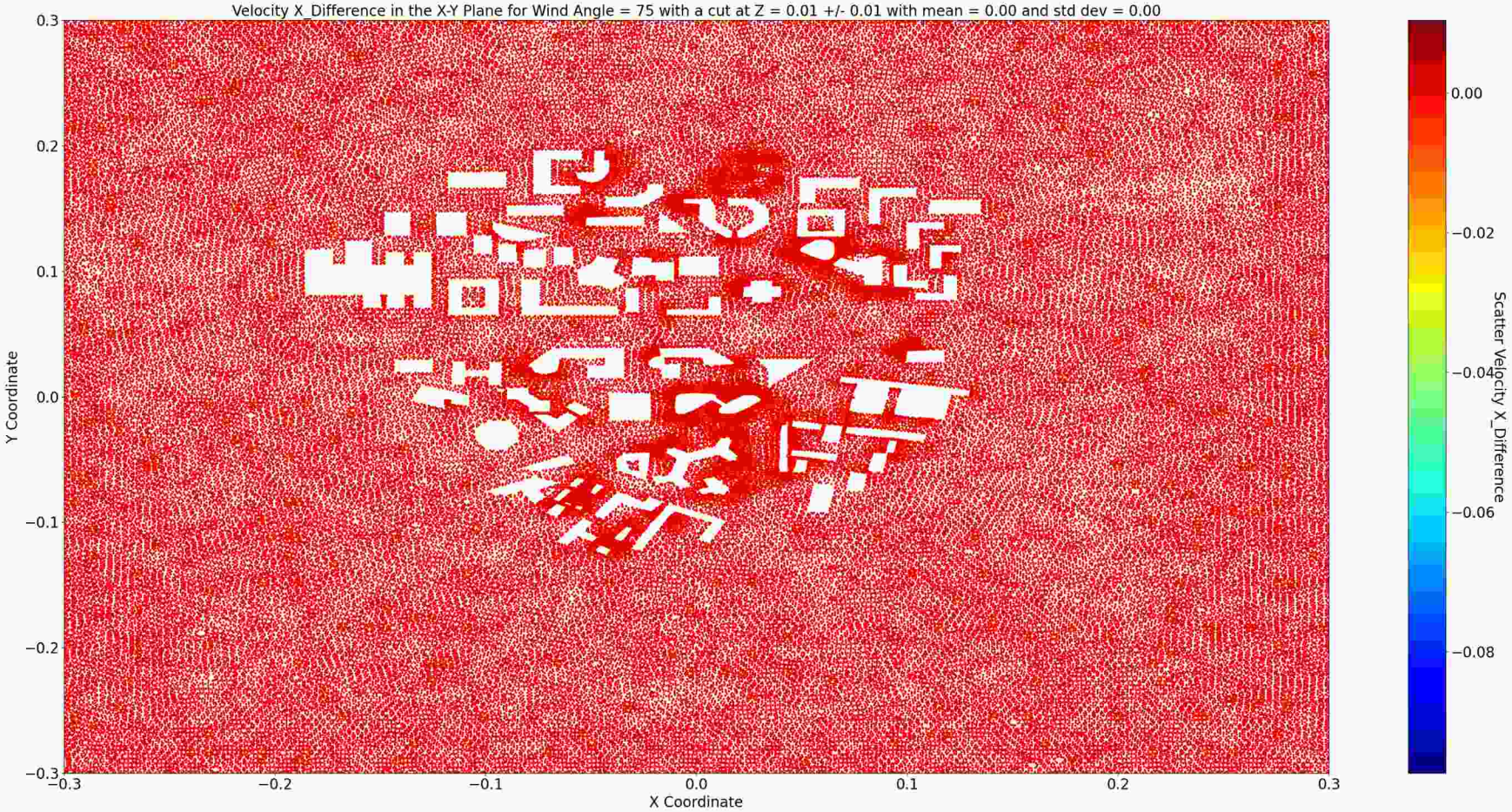

Velocity X_Difference in the X-Y Plane for Wind Angle = 0 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity X_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3

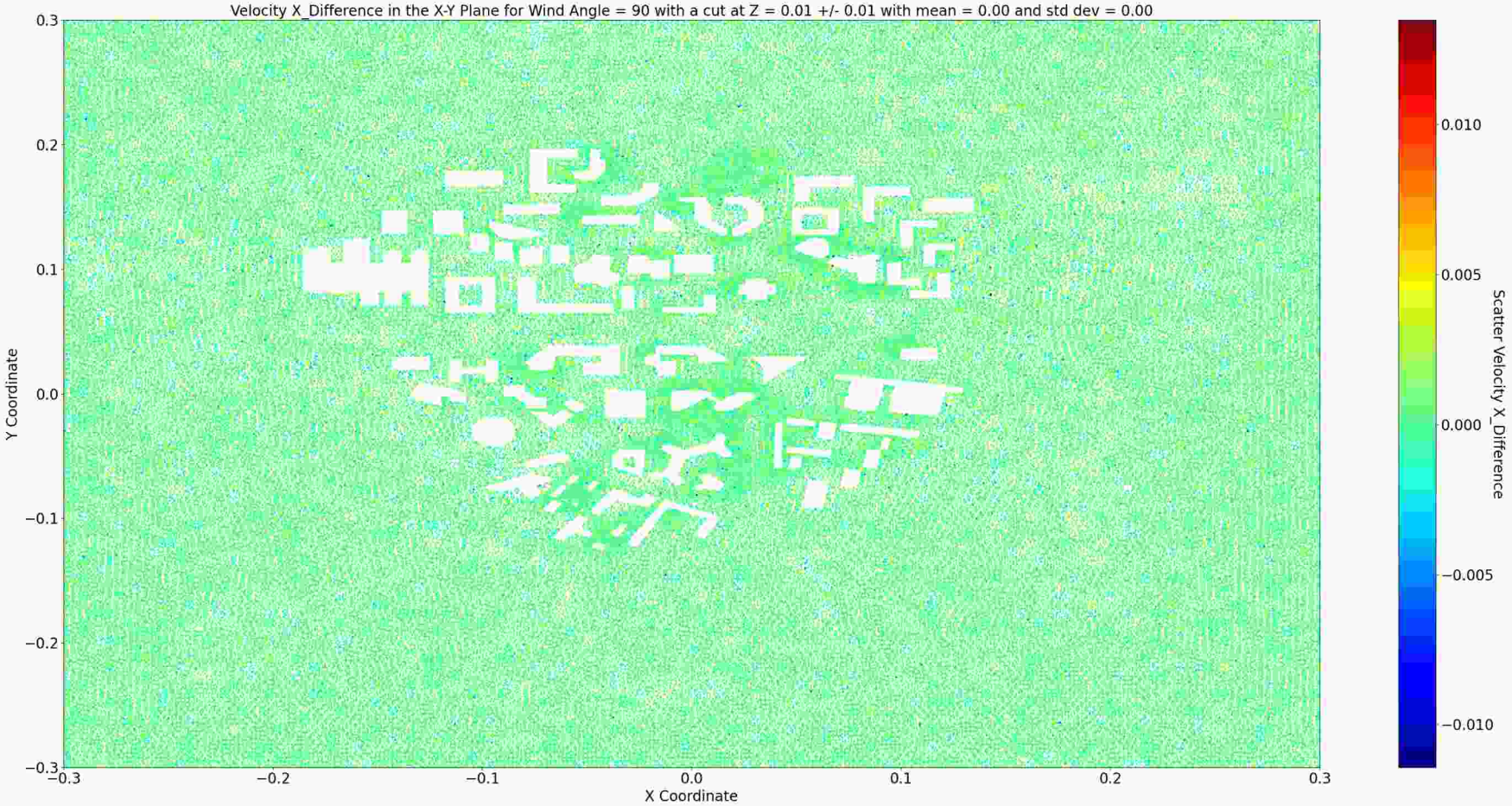

Velocity X_Difference in the X-Y Plane for Wind Angle = 15 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity X_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.4

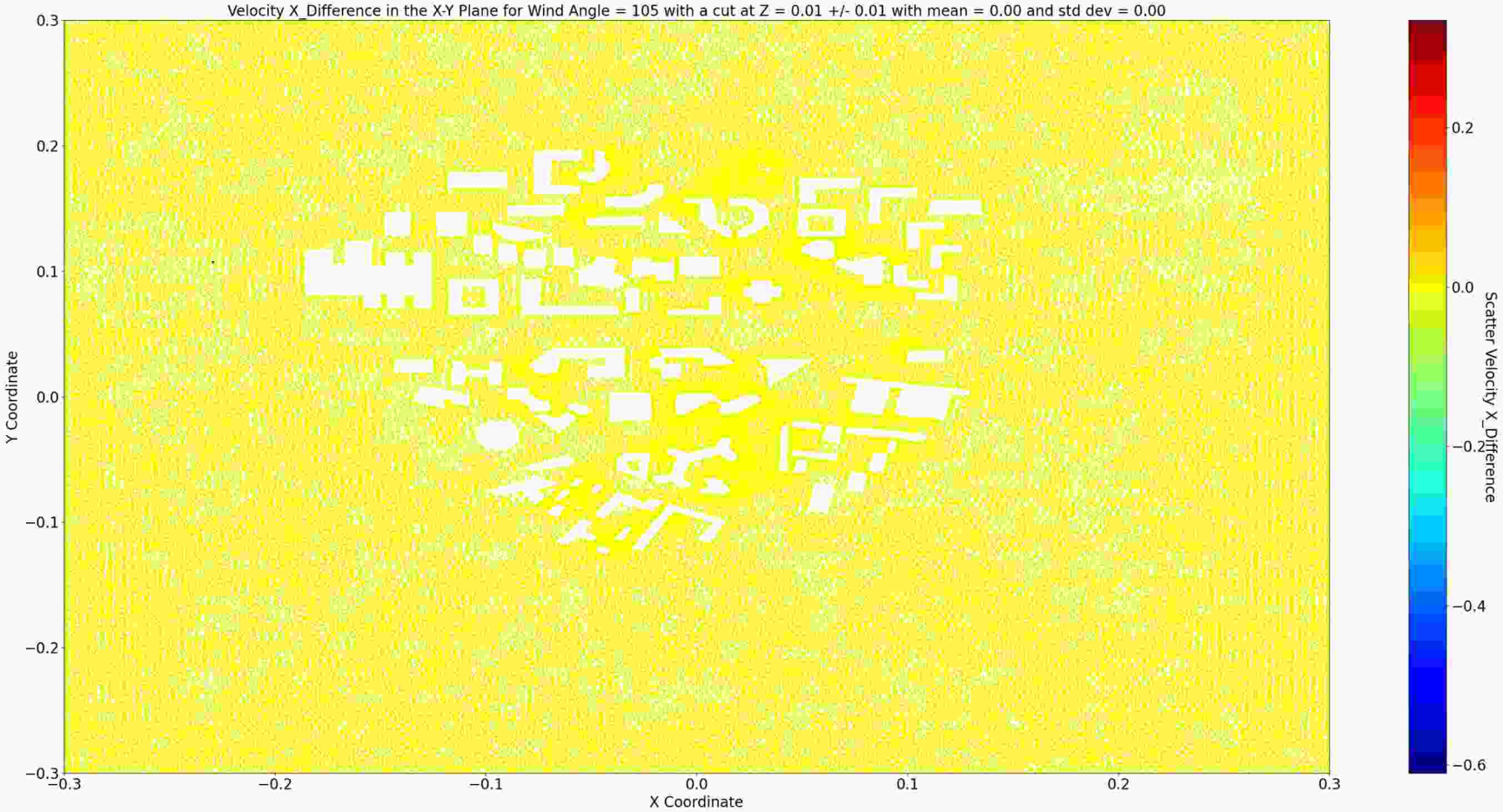

Velocity X_Difference in the X-Y Plane for Wind Angle = 30 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity X_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4
−0.6

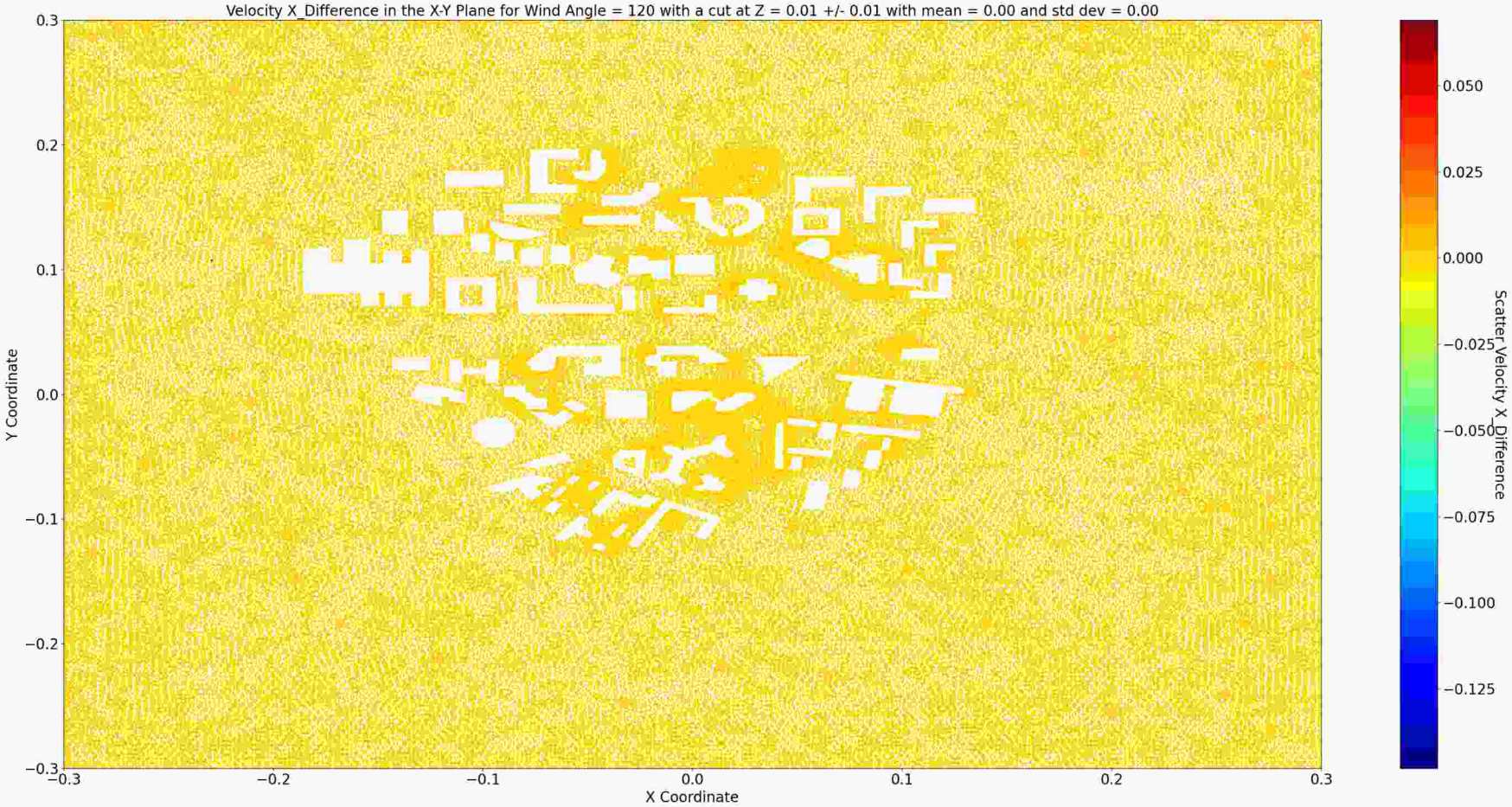

Velocity X_Difference in the X-Y Plane for Wind Angle = 45 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
Scatter Velocity X_Difference
0.20
0.15
0.10
0.05
0.00

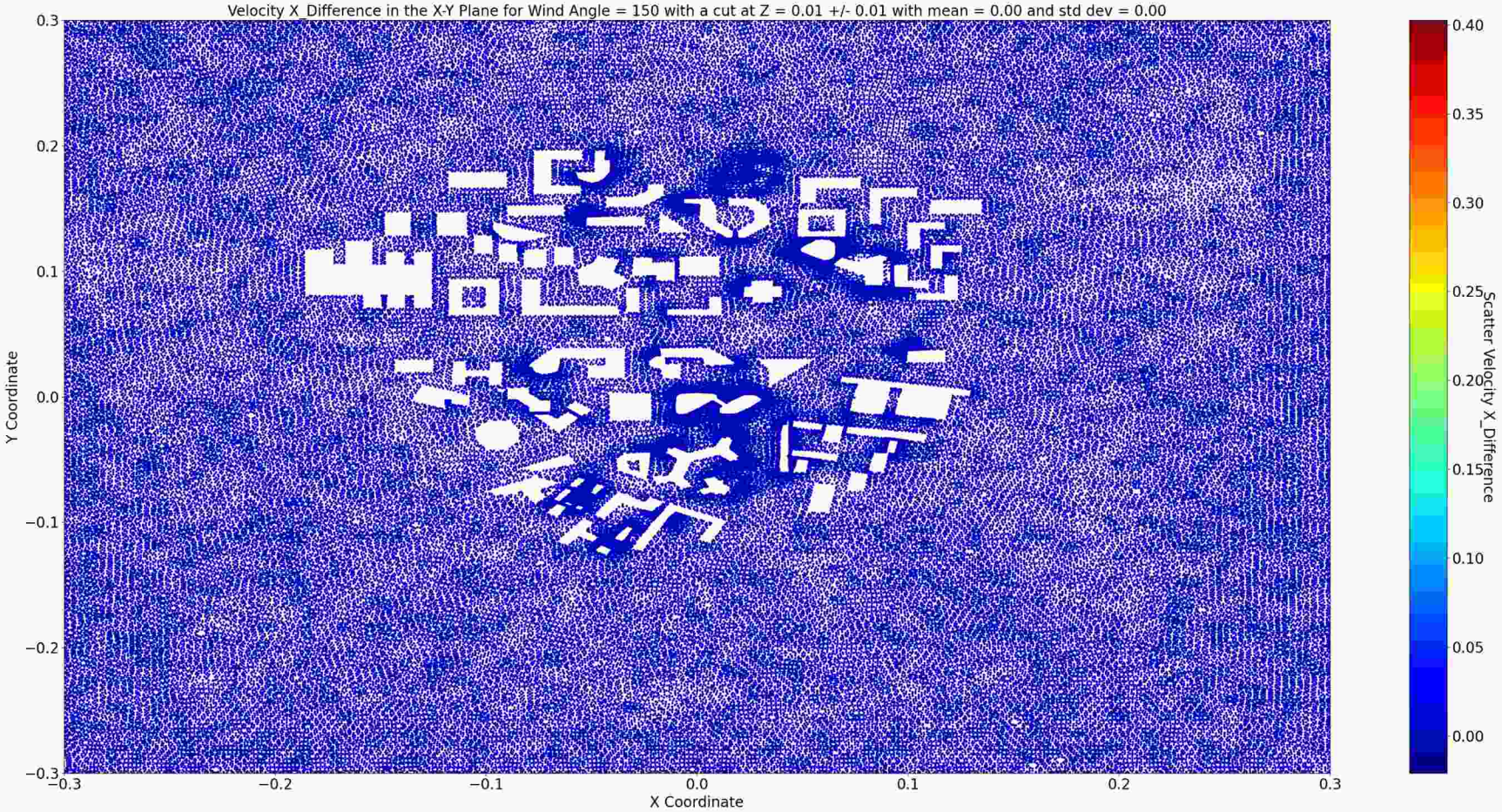

Velocity X_Difference in the X-Y Plane for Wind Angle = 60 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity X_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.0100
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075

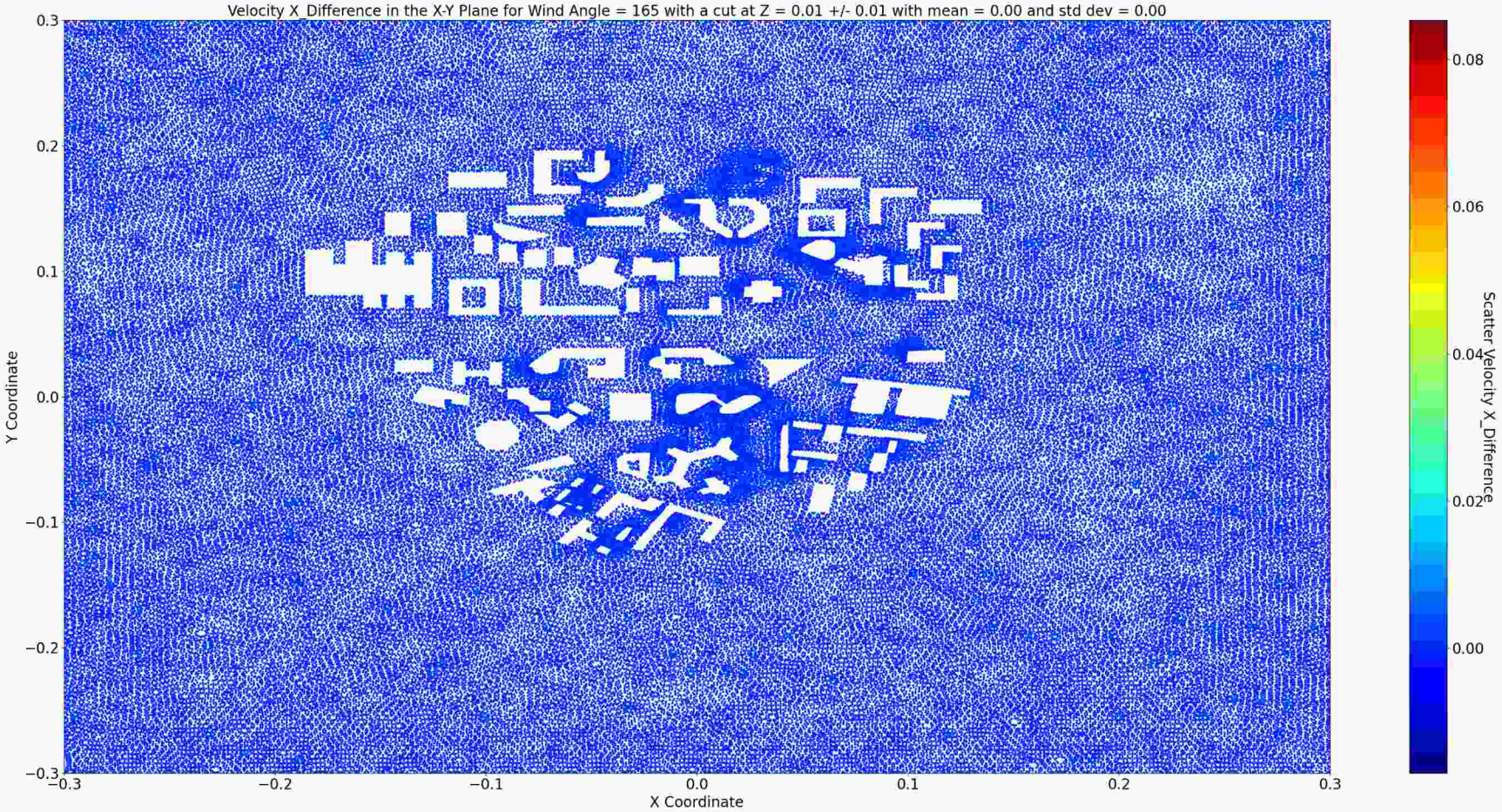

Velocity X_Difference in the X-Y Plane for Wind Angle = 75 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity X_Difference
0.00
−0.02
−0.04
−0.06
−0.08

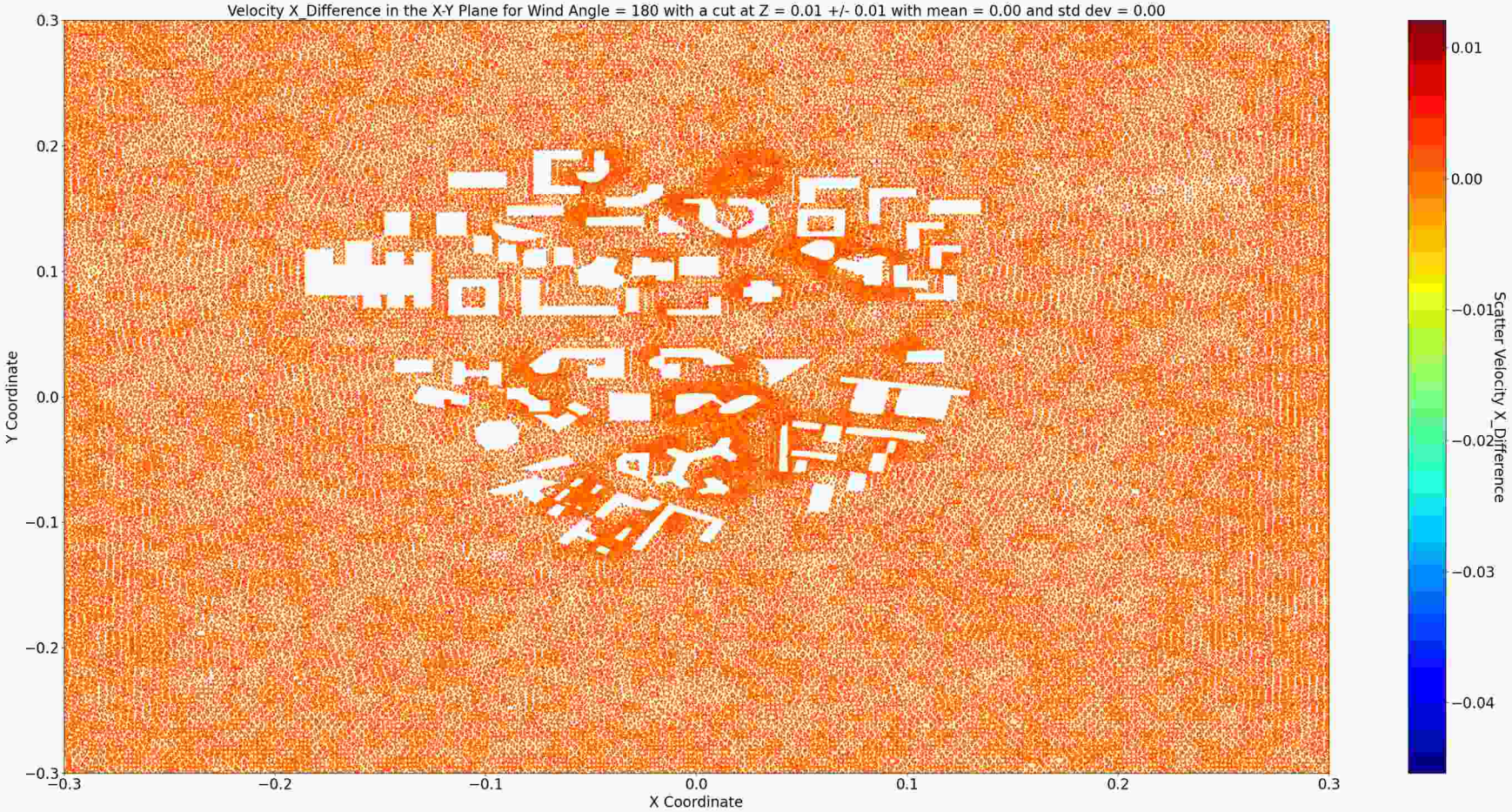

Velocity X_Difference in the X-Y Plane for Wind Angle = 90 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity X_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.010
0.005
0.000
−0.005
−0.010


Velocity X_Difference in the X-Y Plane for Wind Angle = 105 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity X_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.6
−0.4
−0.2
0.0
0.2

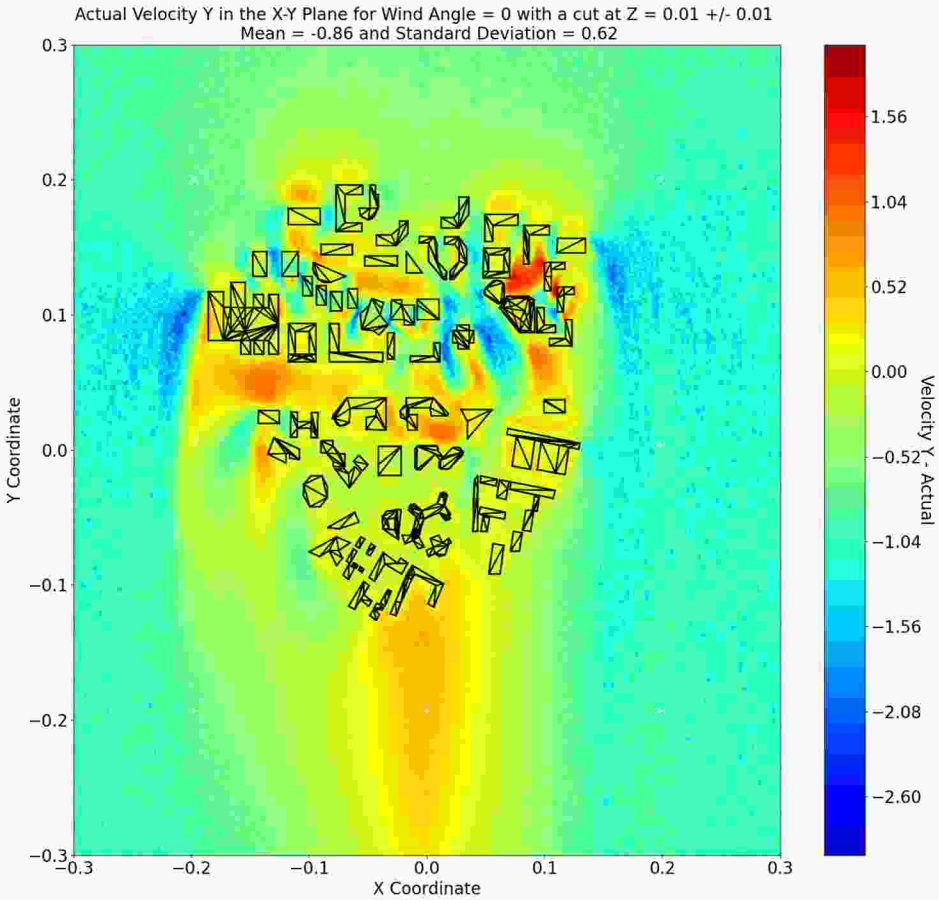

Velocity X_Difference in the X-Y Plane for Wind Angle = 120 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity X_Difference
0.050
0.025
0.000
−0.025
−0.050
−0.075
−0.100
−0.125

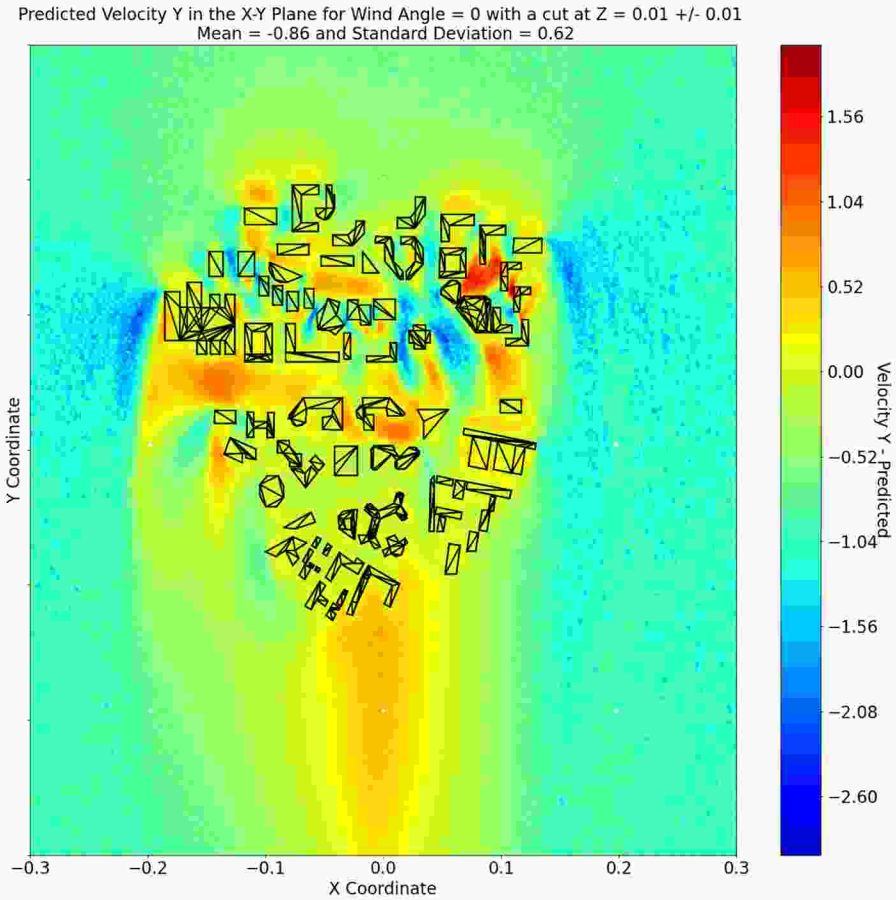

Velocity X_Difference in the X-Y Plane for Wind Angle = 150 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity X_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00


Velocity X_Difference in the X-Y Plane for Wind Angle = 165 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity X_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.08
0.06
0.04
0.02
0.00

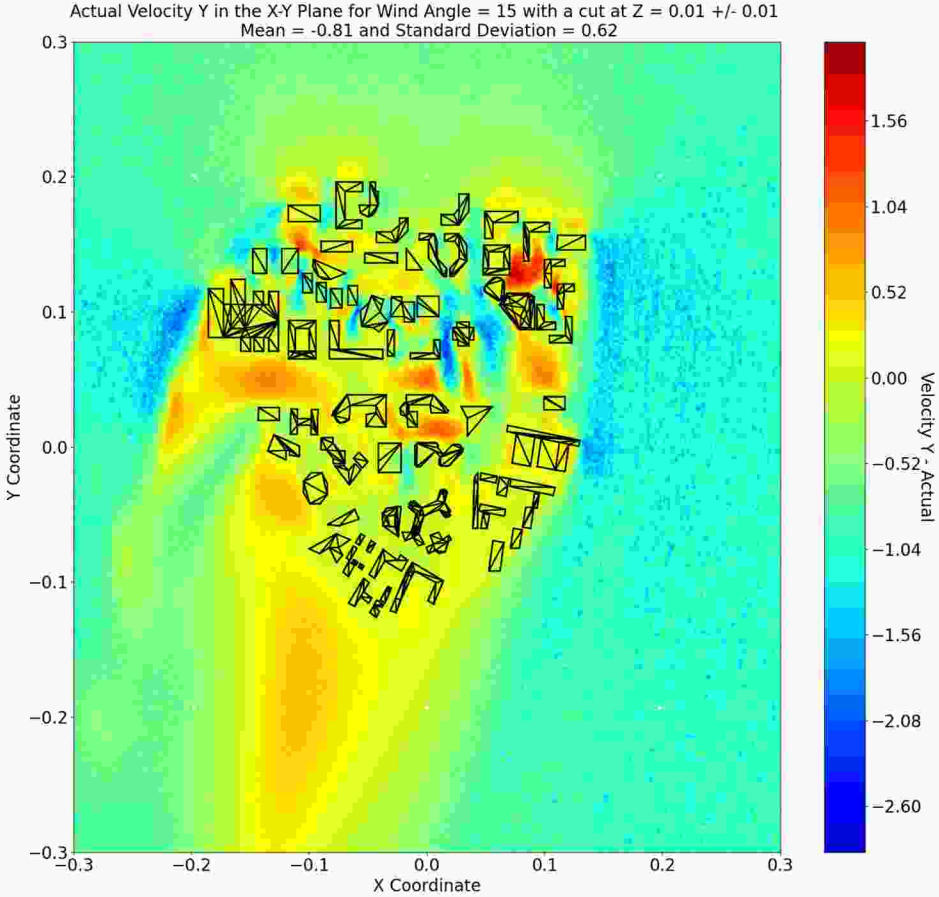

Velocity X_Difference in the X-Y Plane for Wind Angle = 180 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity X_Difference
0.01
0.00
−0.01
−0.02
−0.03
−0.04

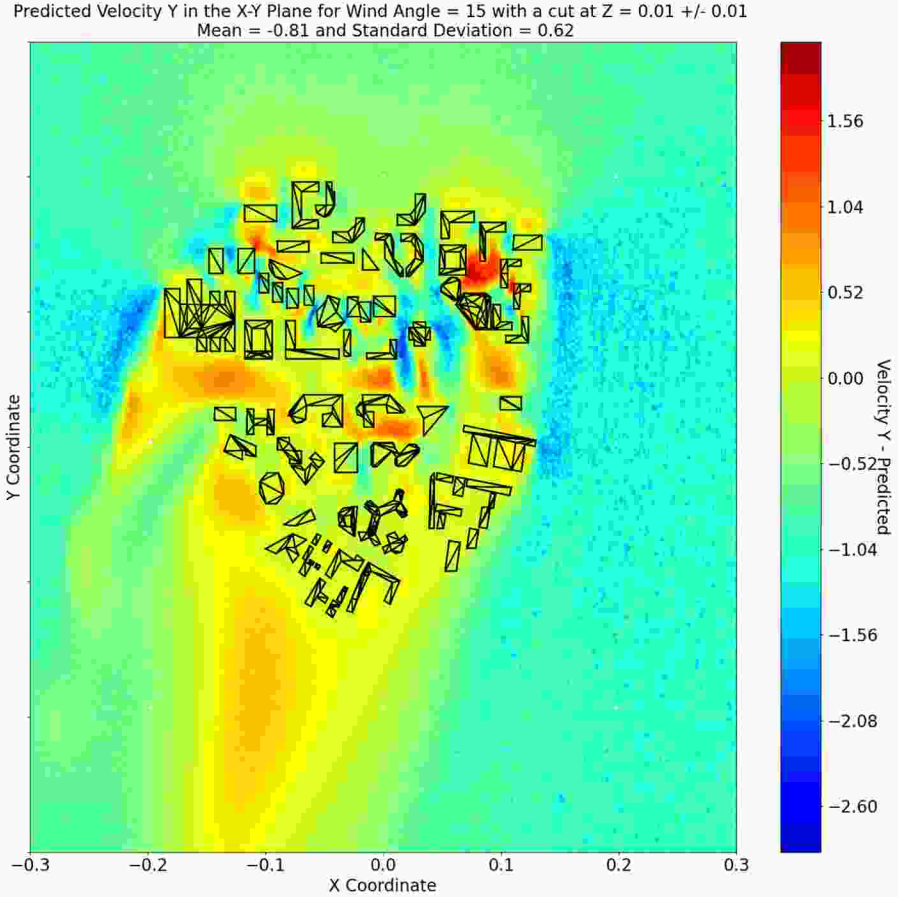
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



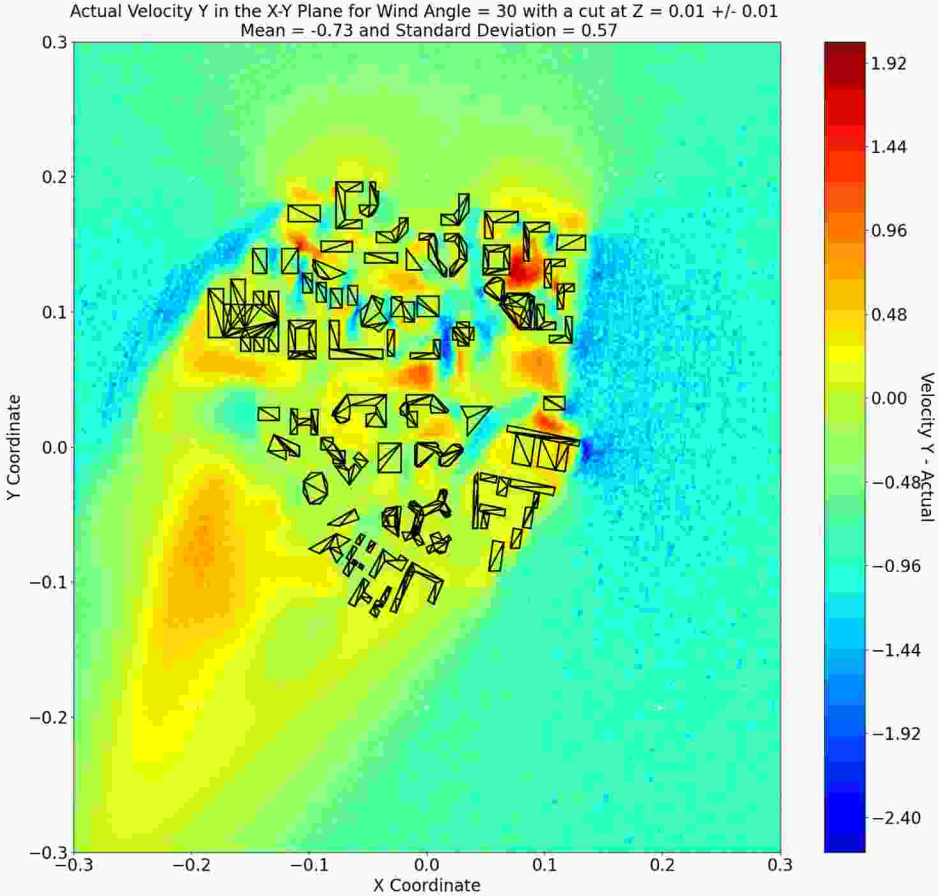


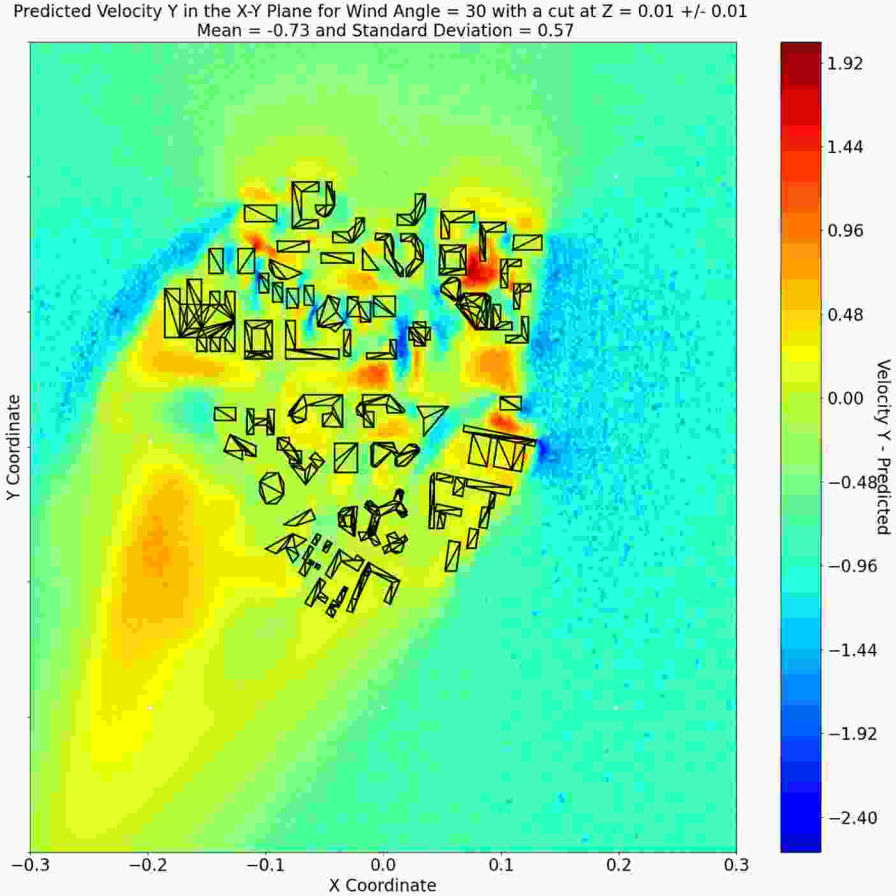
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



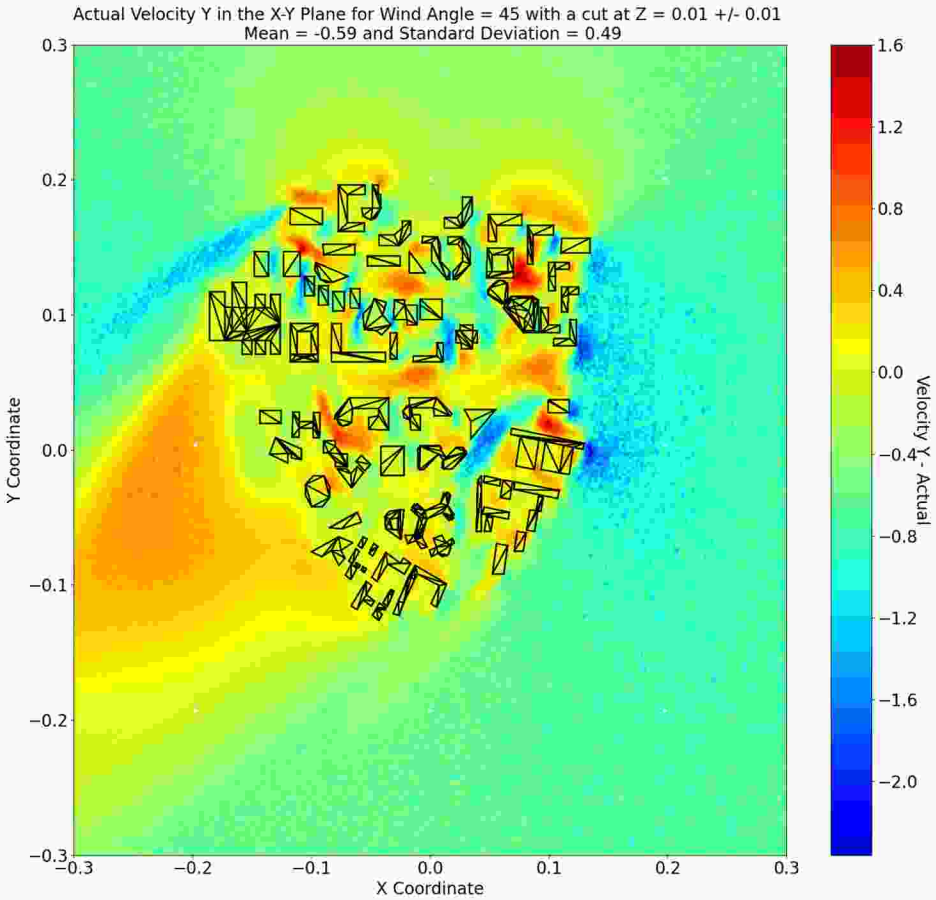


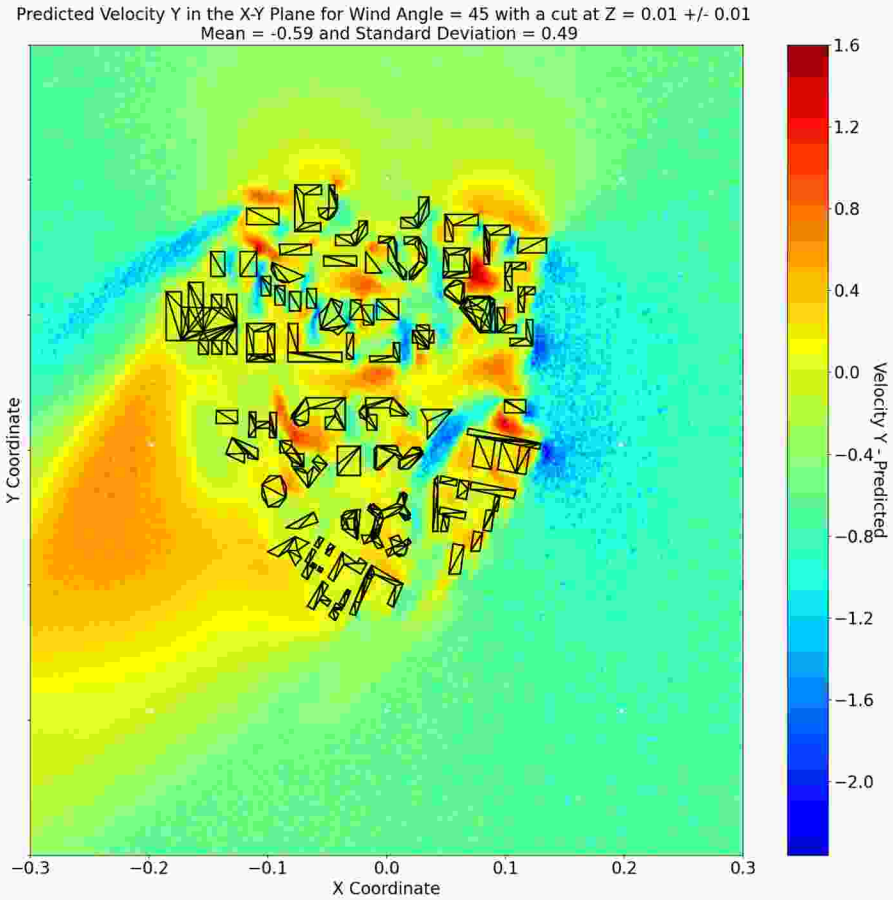
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



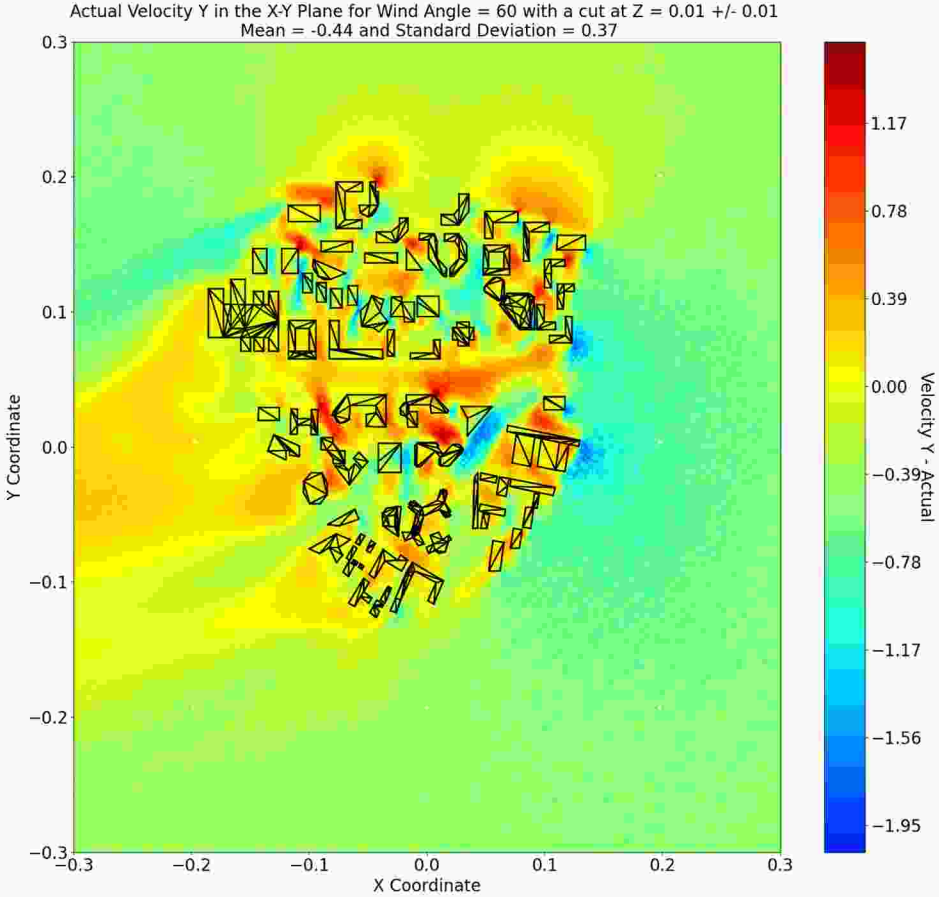


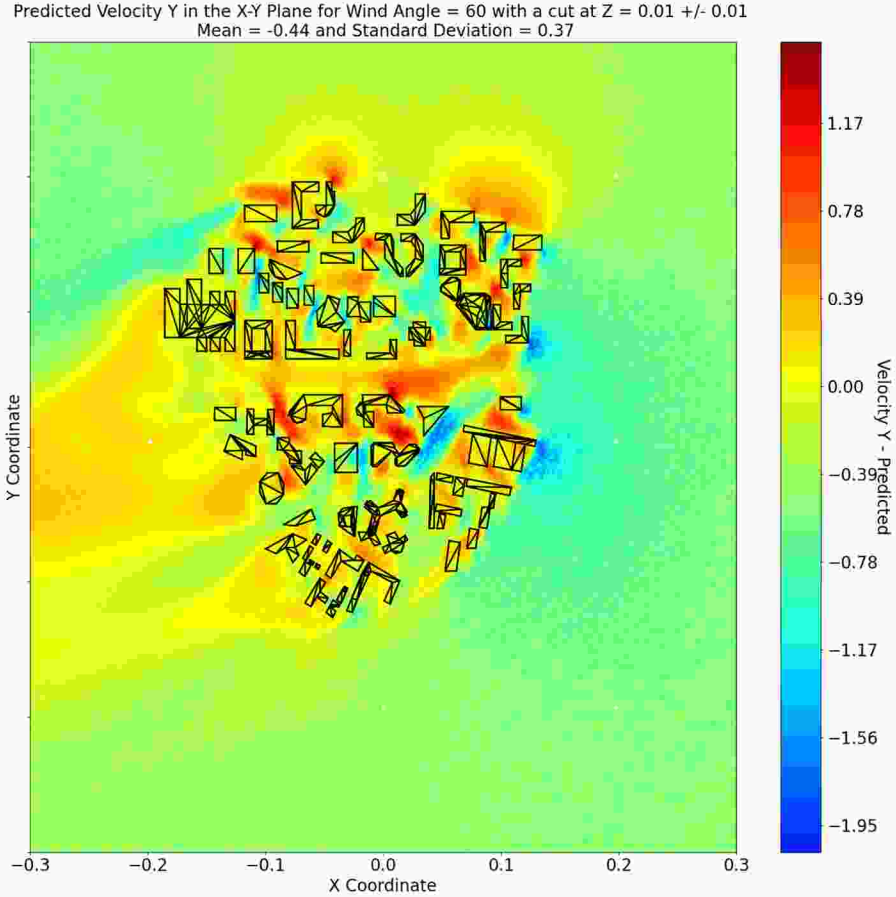
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



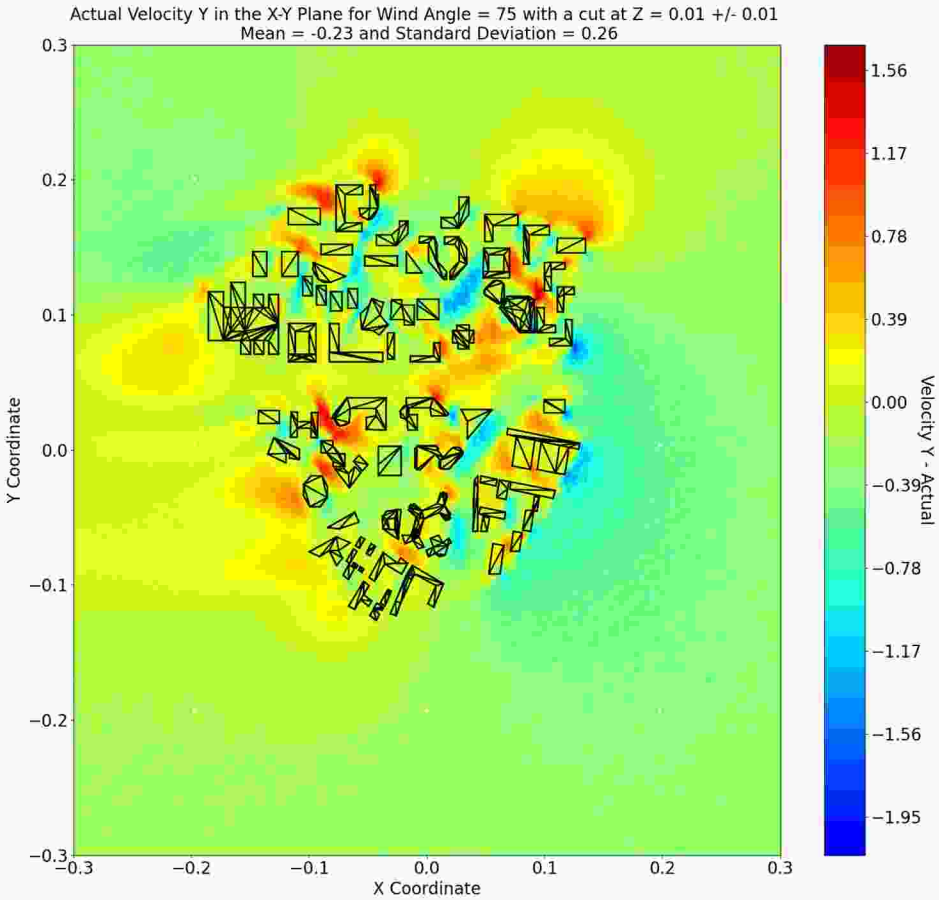


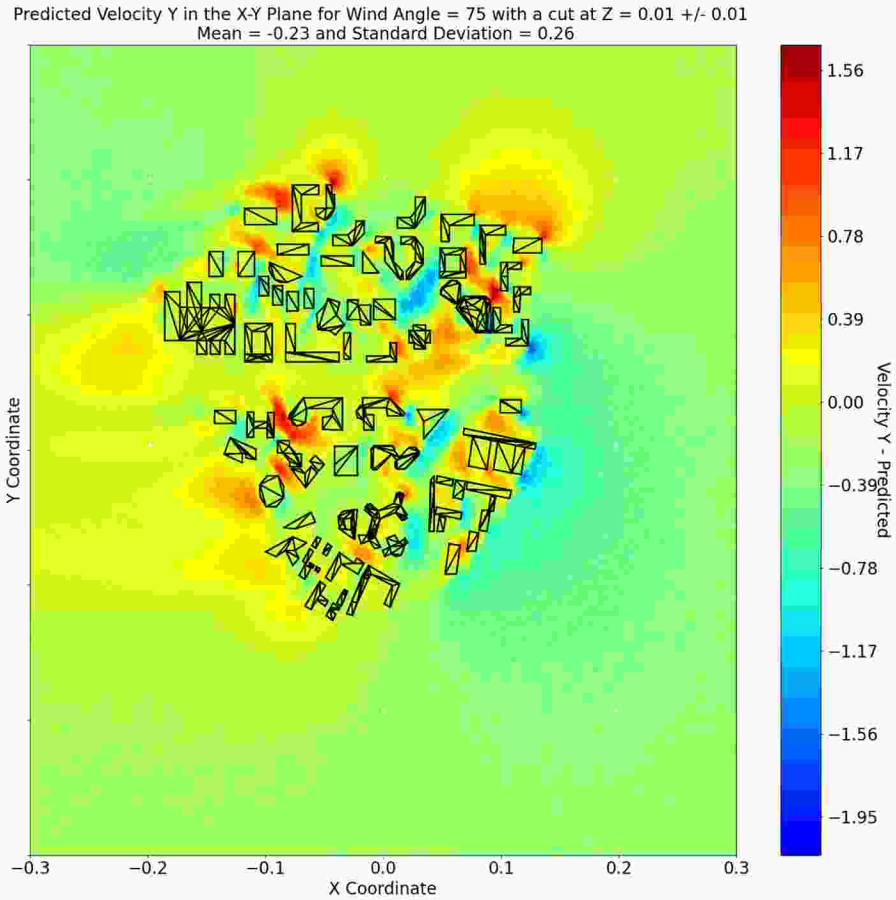
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



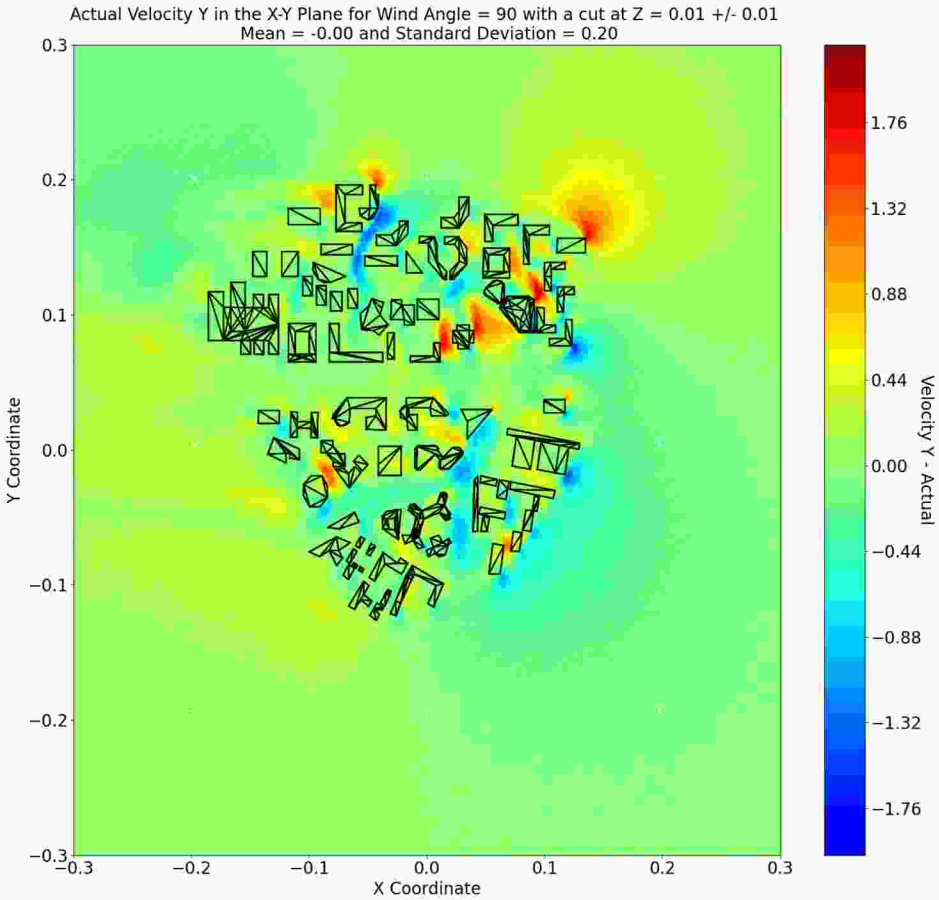


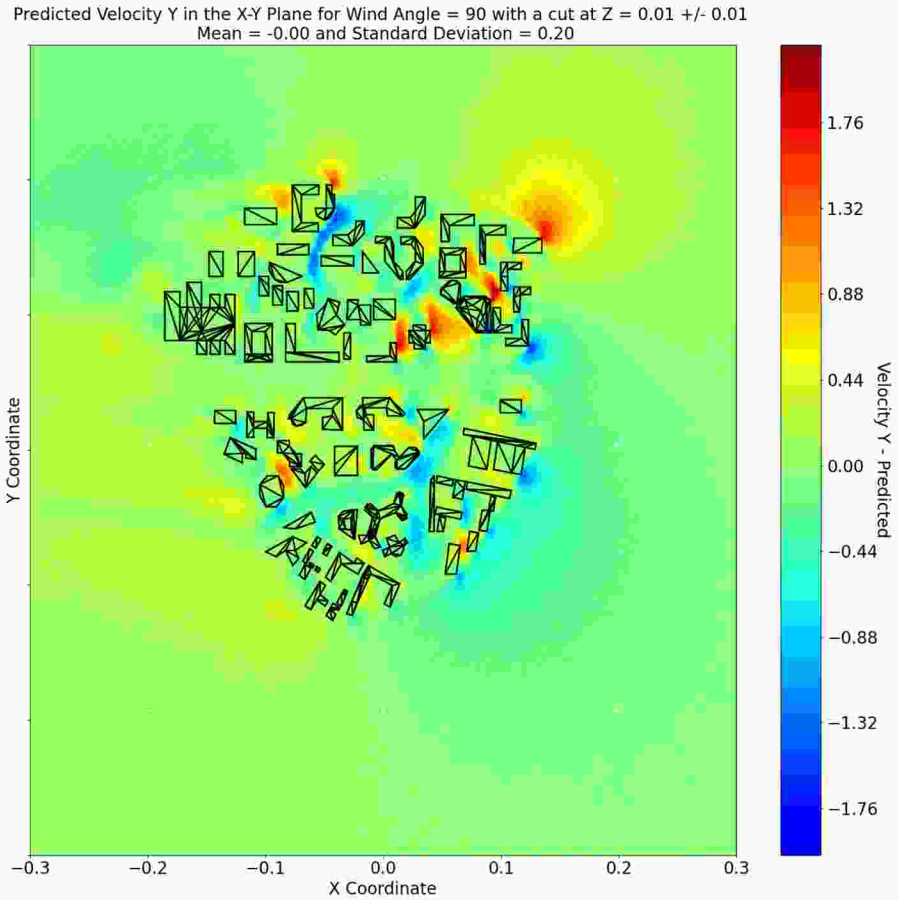
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



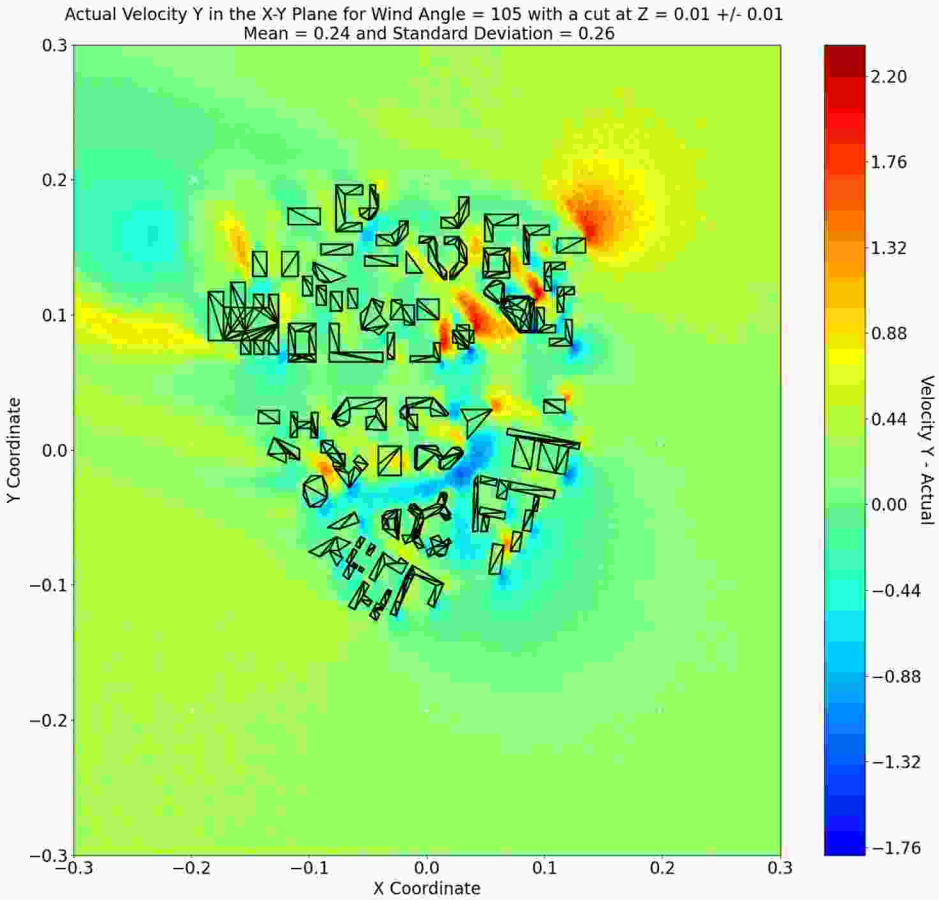


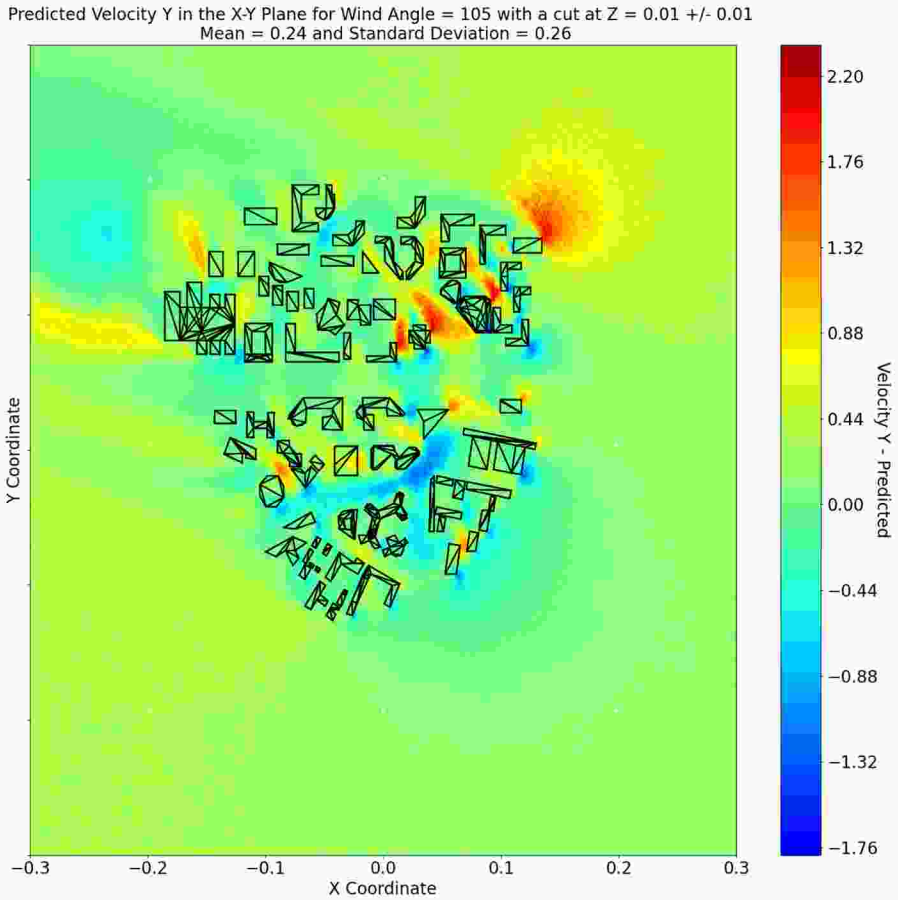
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



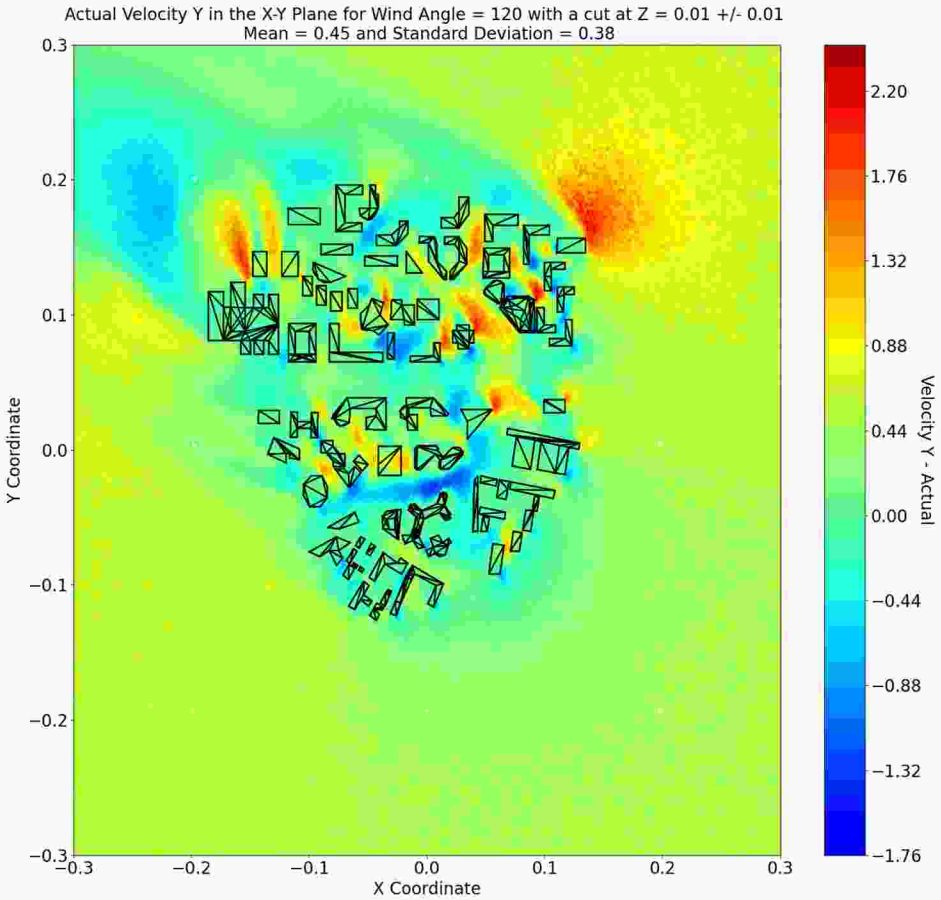


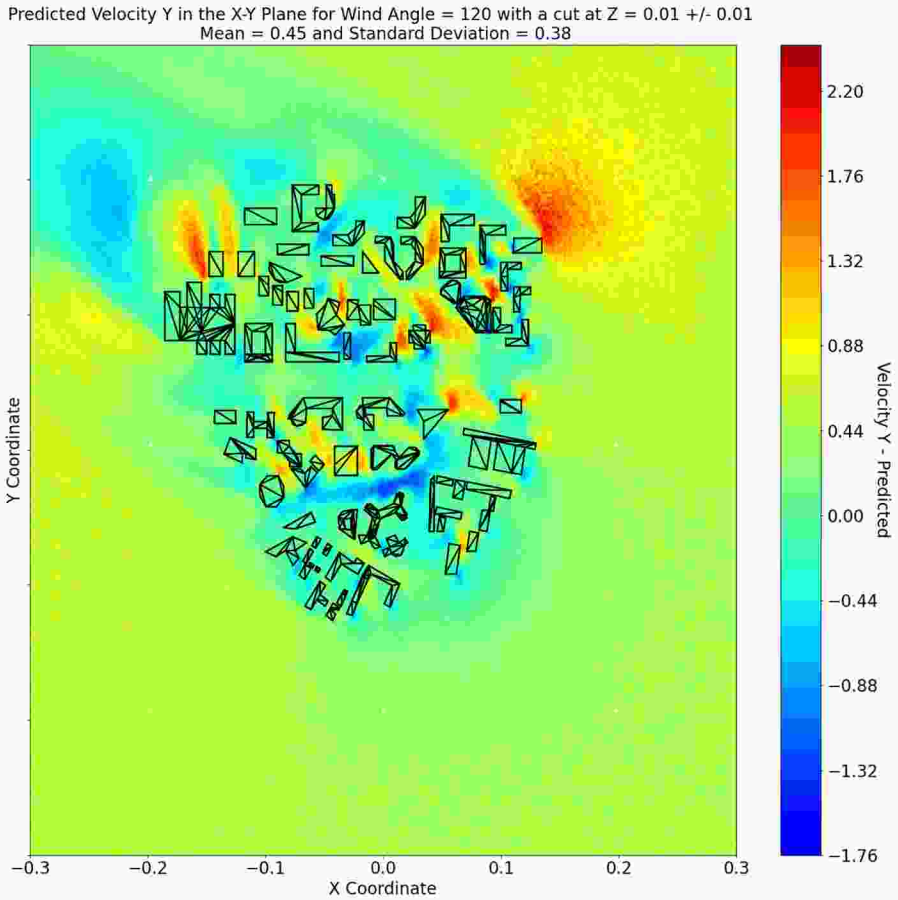
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



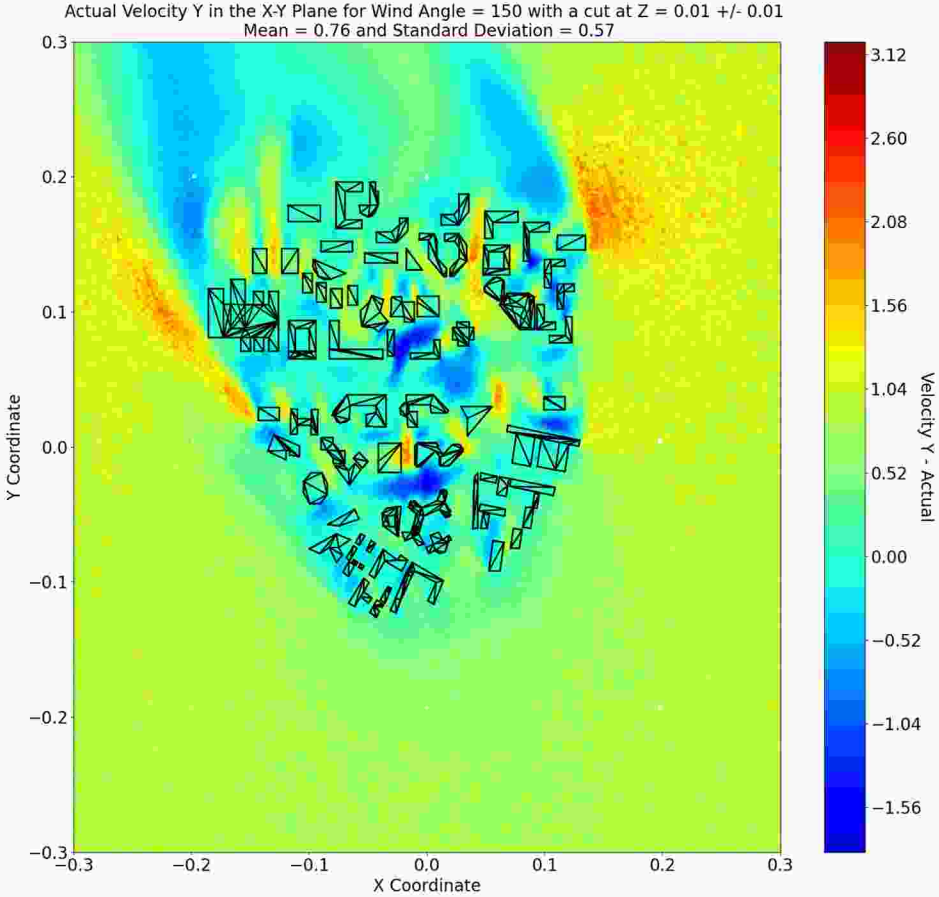


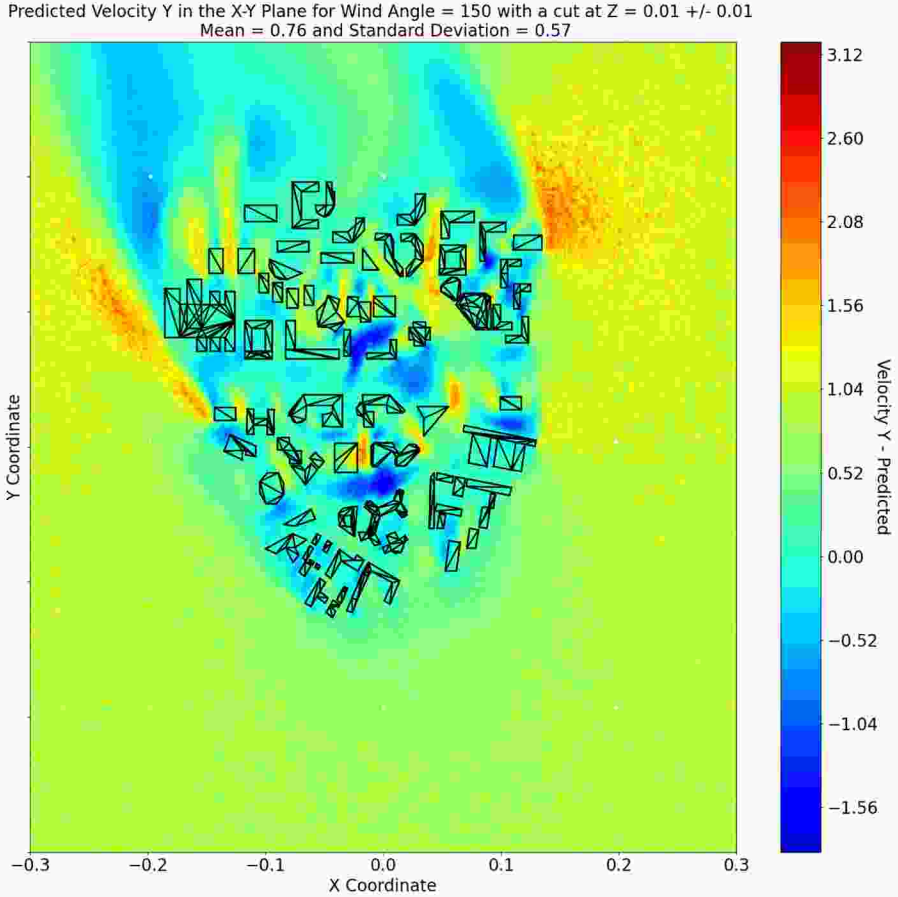
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



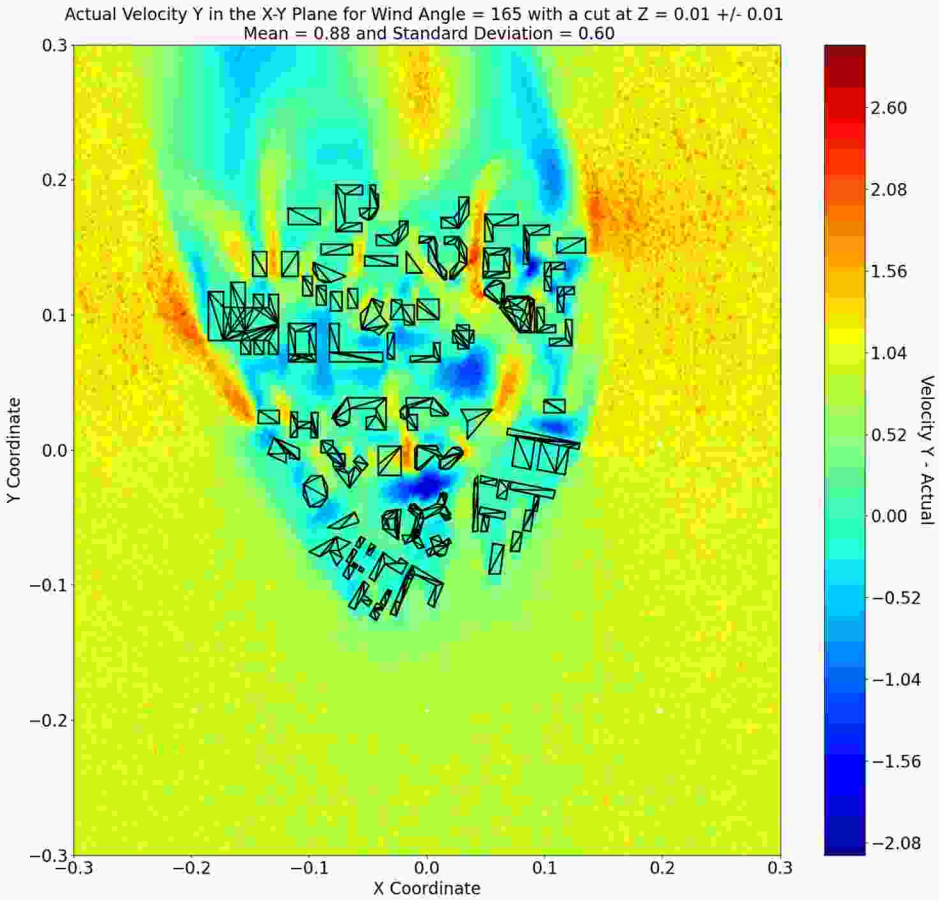


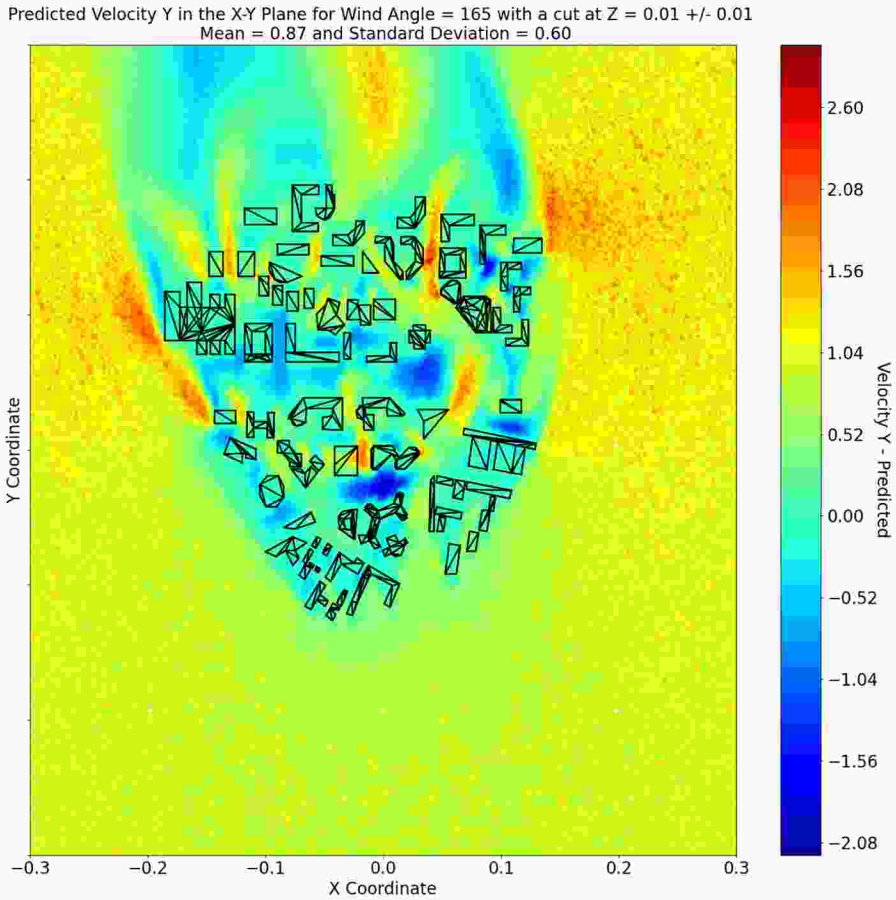
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

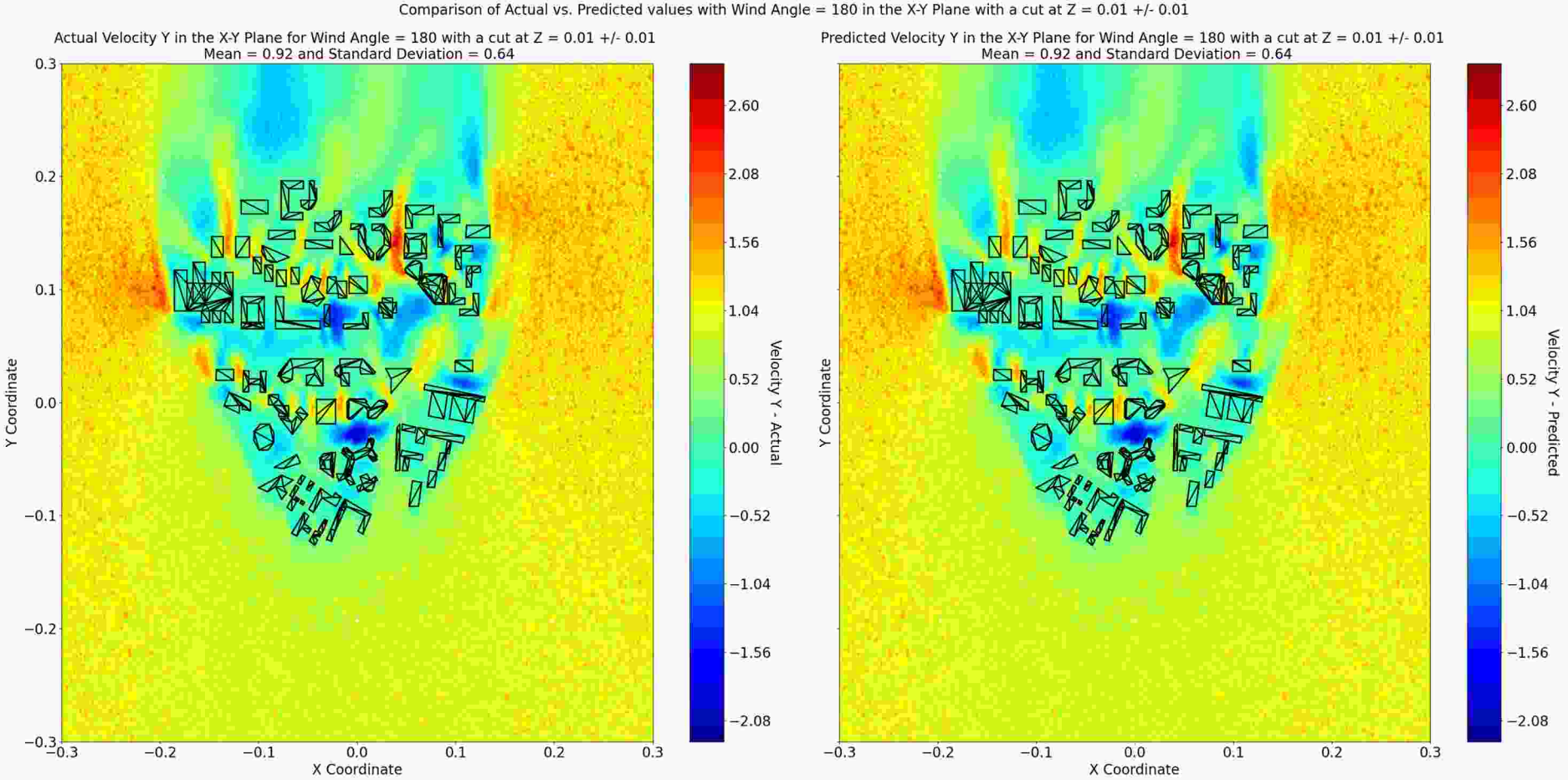




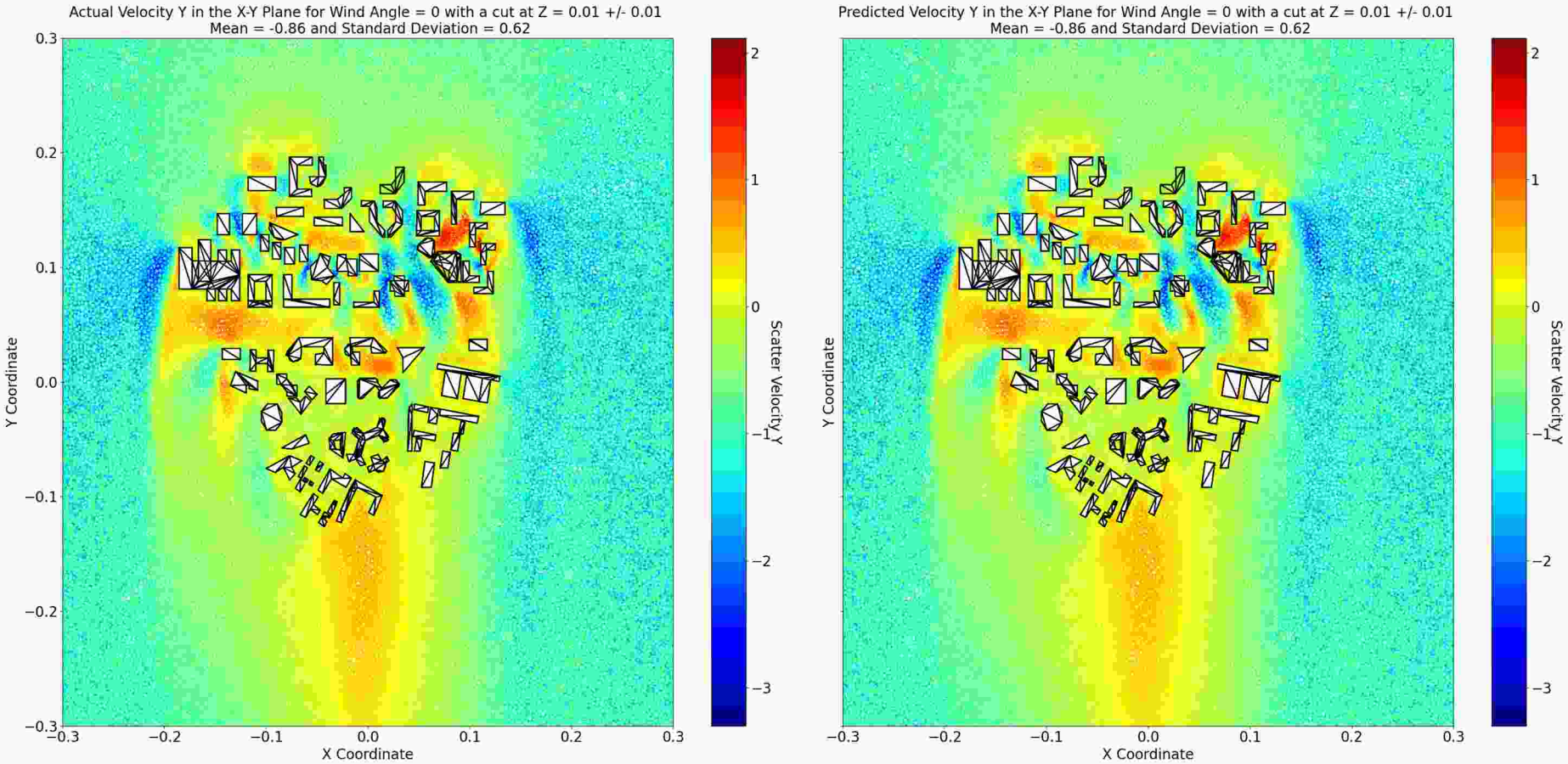
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



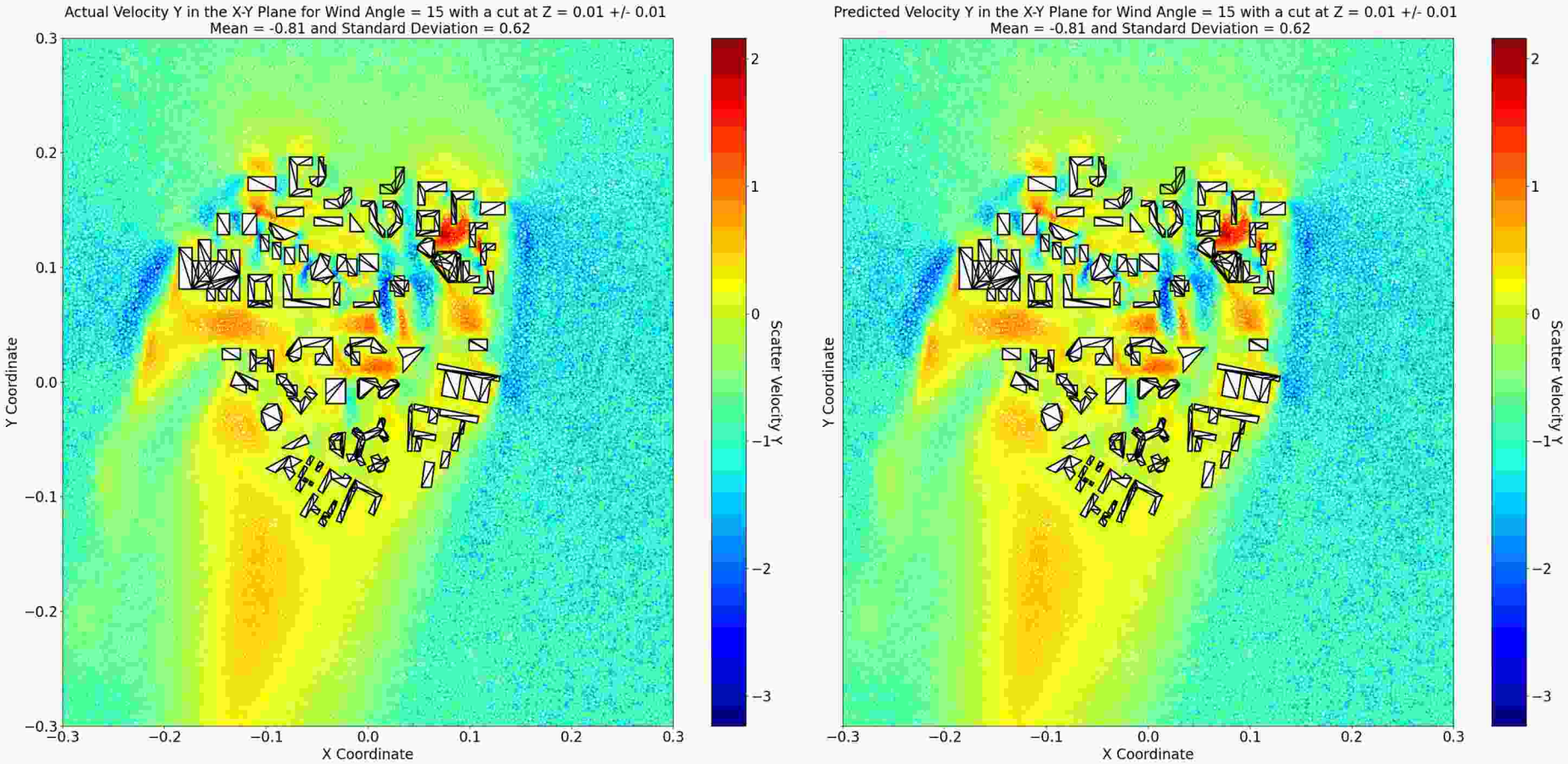



Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual Velocity Y in the X-Y Plane for Wind Angle = 180 with a cut at Z = 0.01 +/- 0.01
Mean = 0.92 and Standard Deviation = 0.64
Predicted Velocity Y in the X-Y Plane for Wind Angle = 180 with a cut at Z = 0.01 +/- 0.01
Mean = 0.92 and Standard Deviation = 0.64
Y Coordinate
X Coordinate
Velocity Y - Actual
Velocity Y - Predicted
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
2.60
2.08
1.56
1.04
0.52
0.00
−0.52
−1.04
−1.56
−2.08

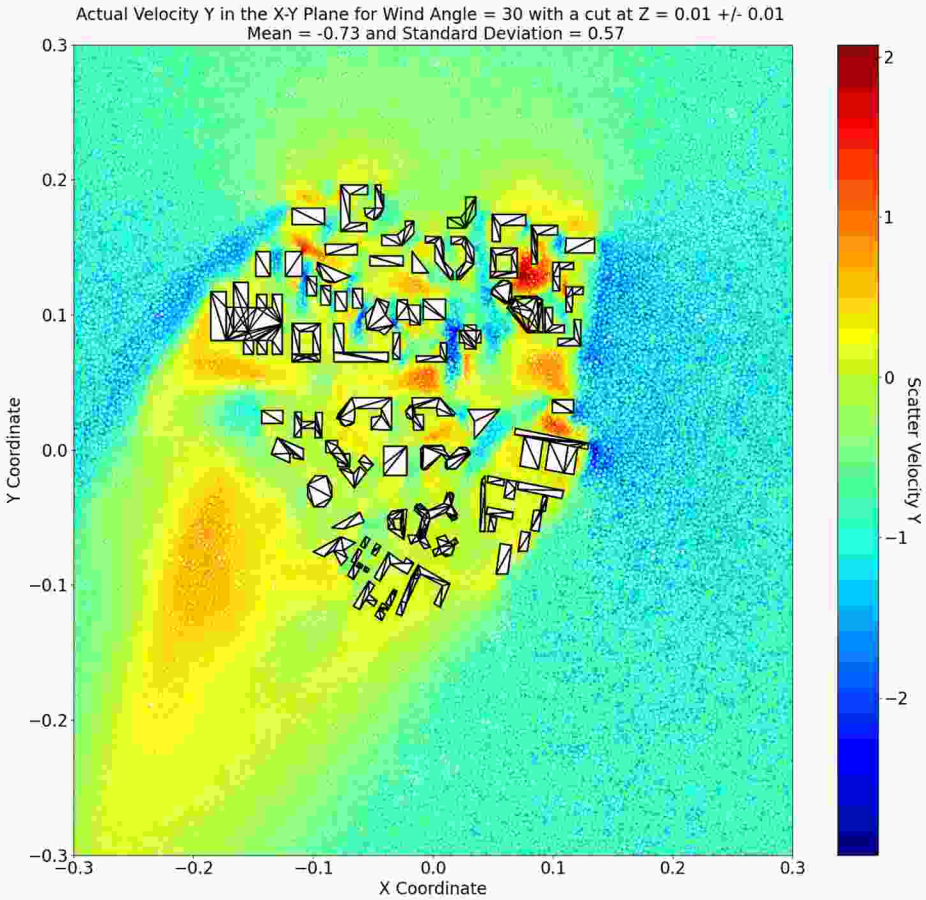
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

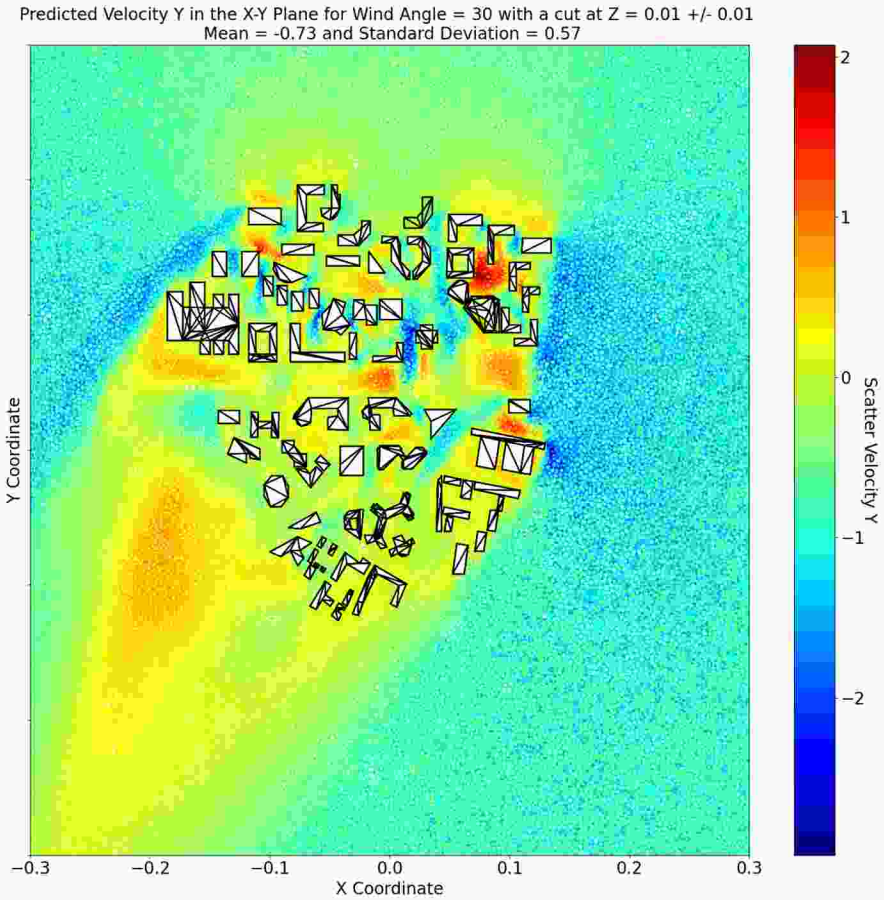


Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

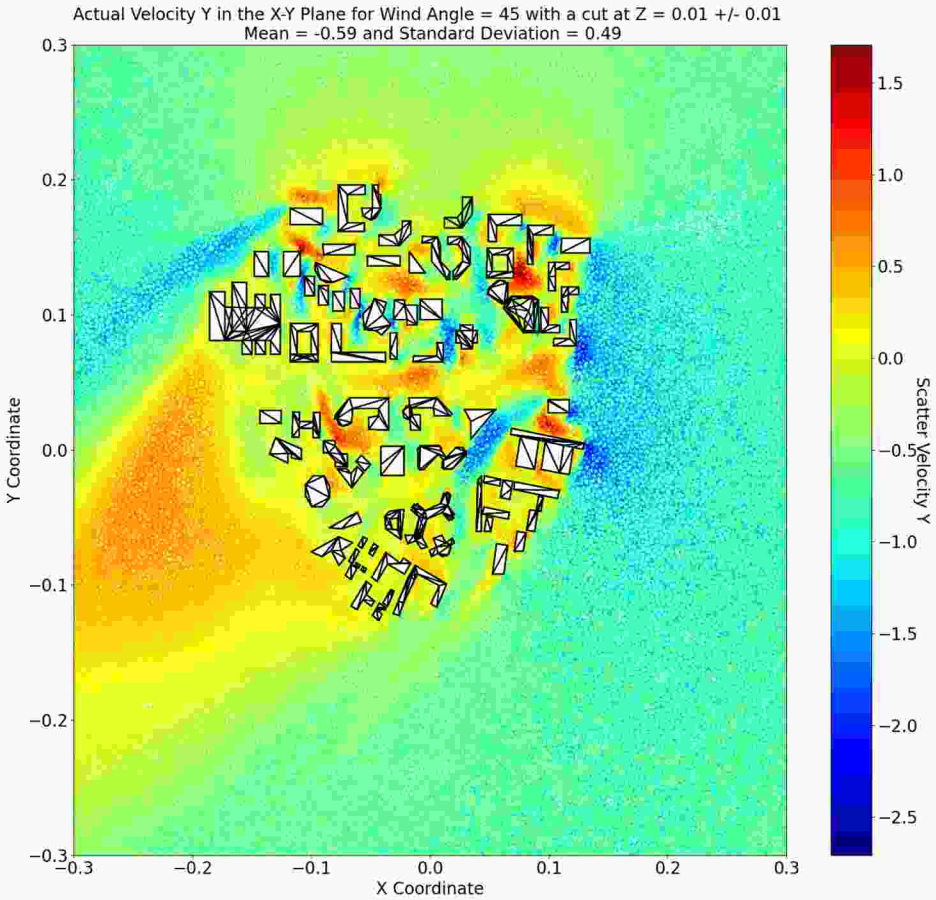


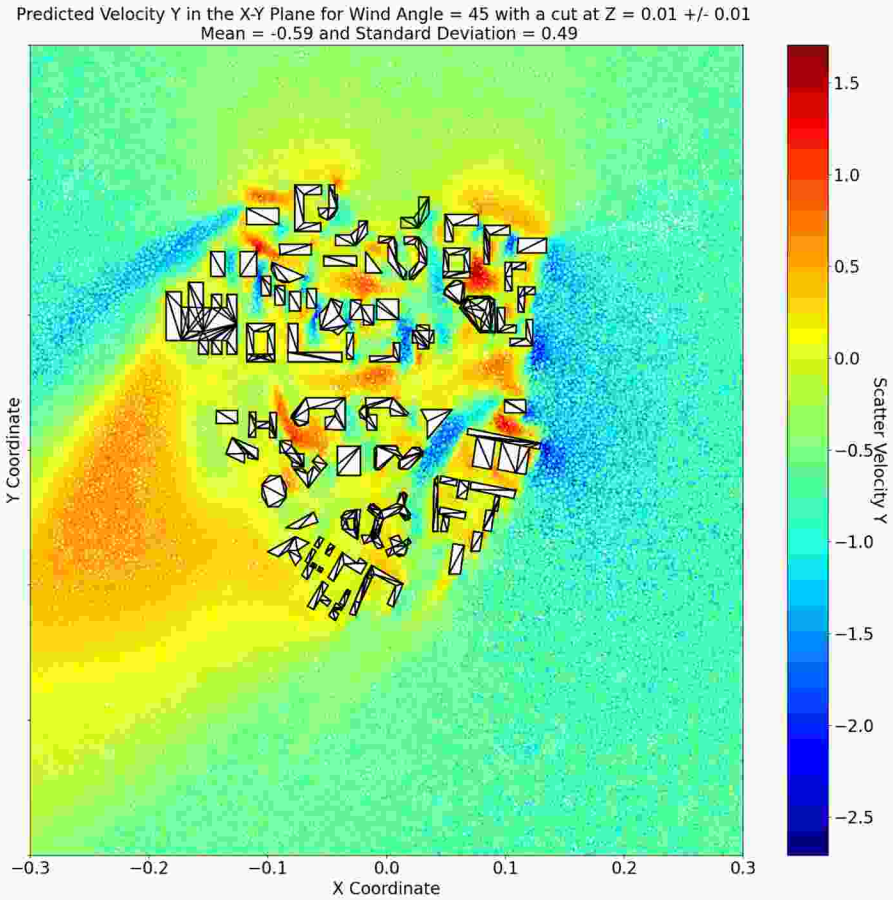
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



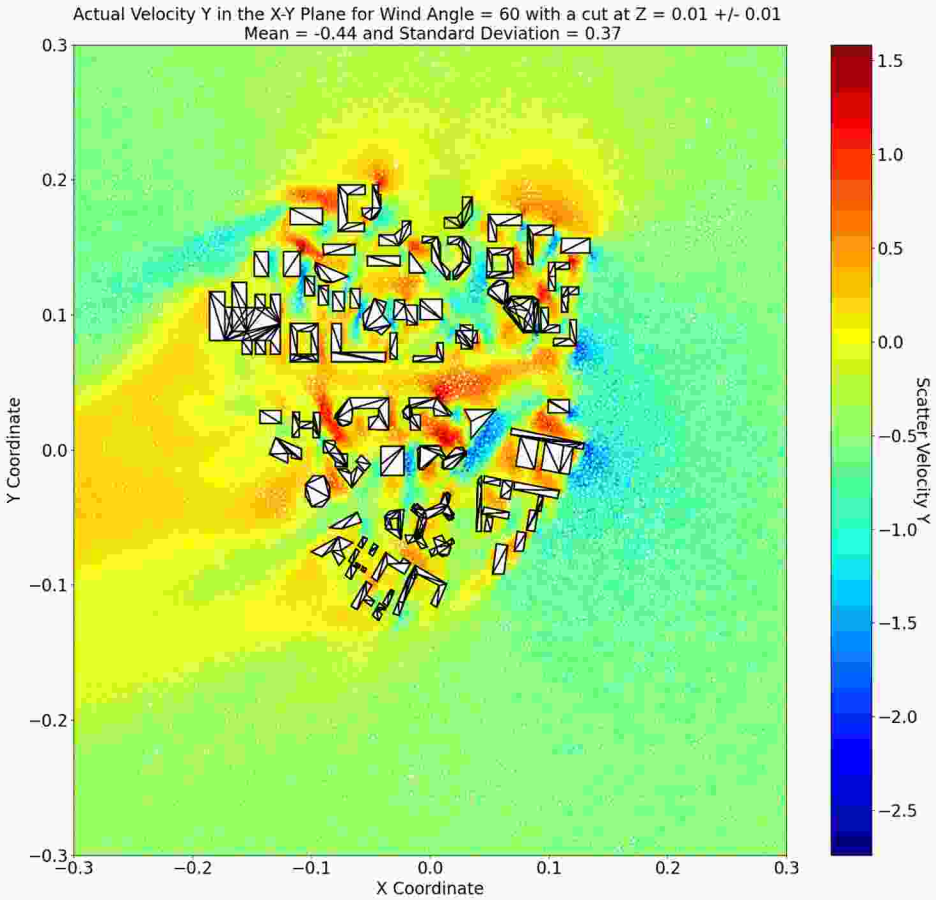


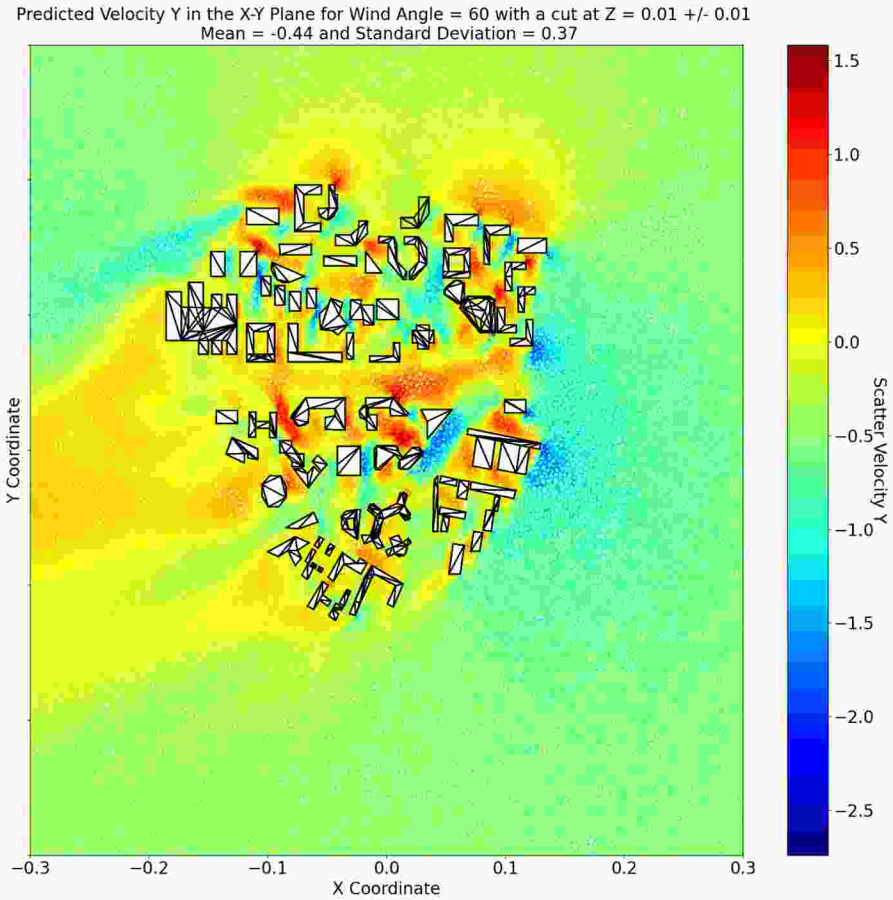
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



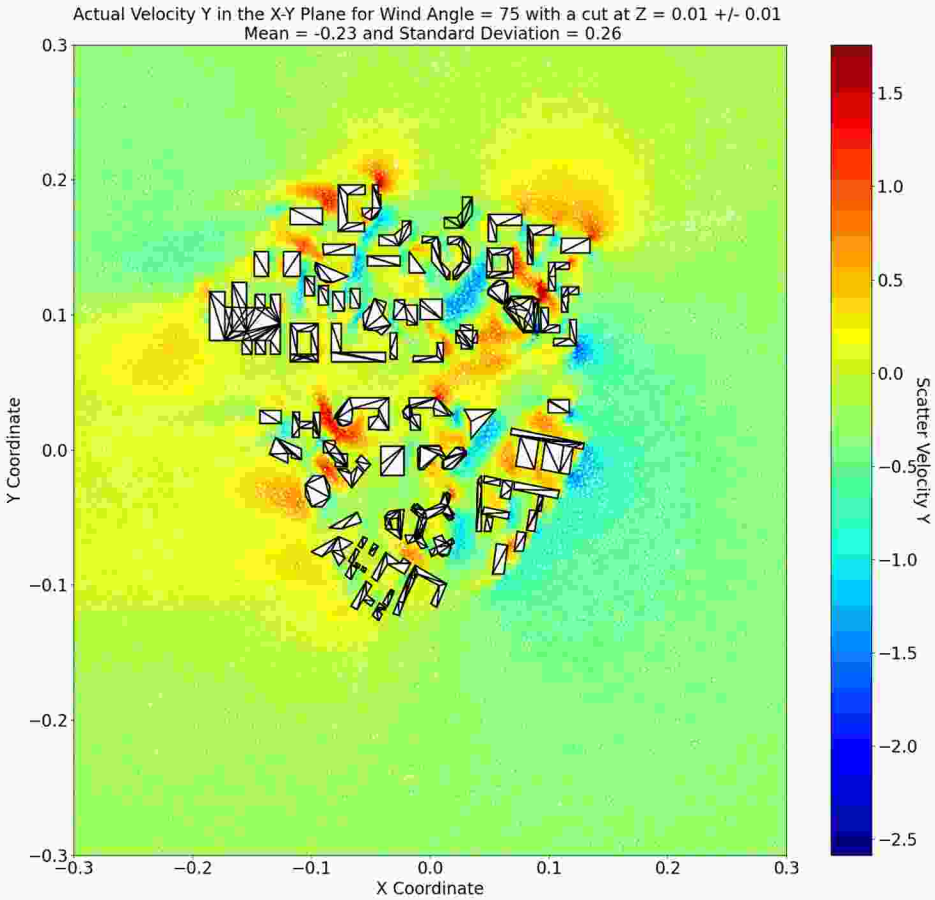


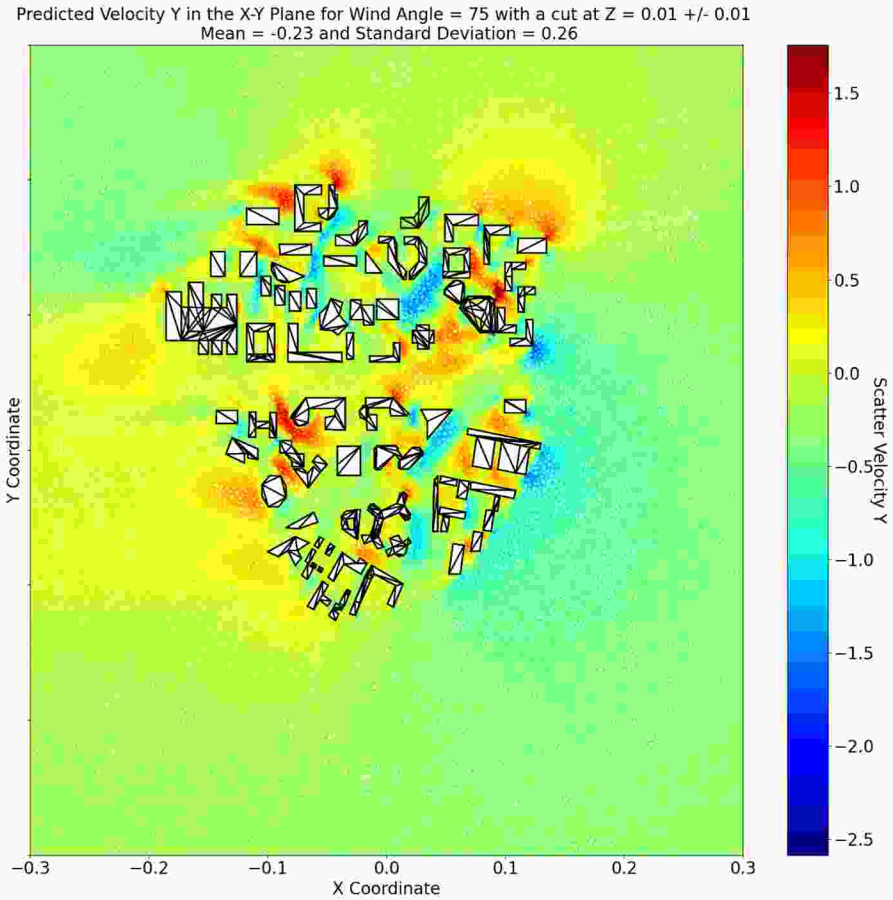
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



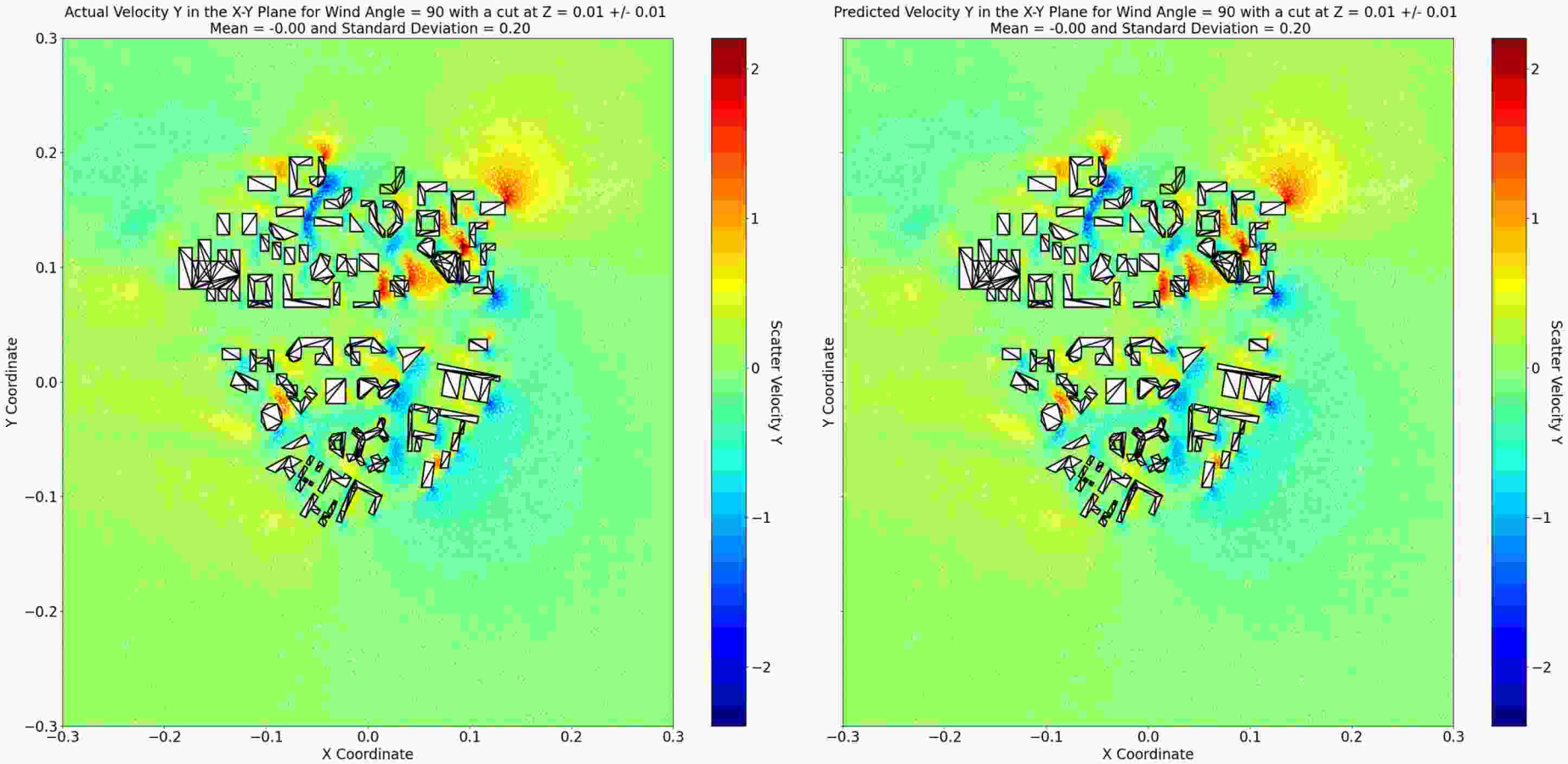


Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

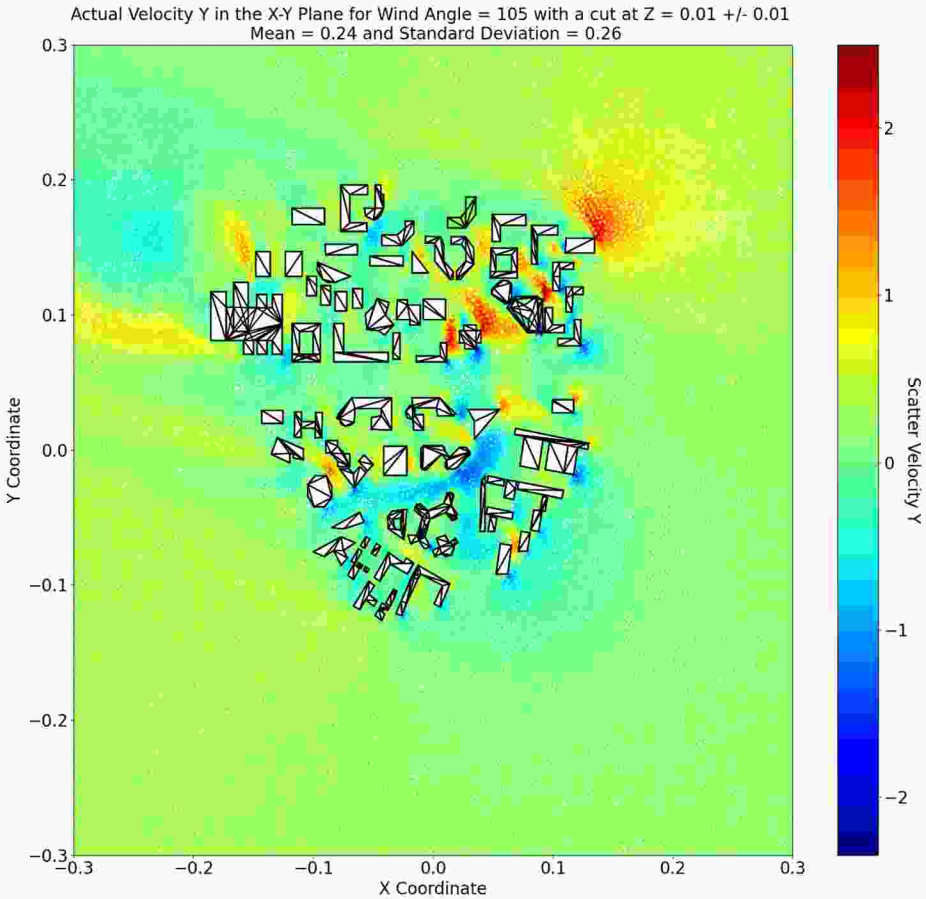


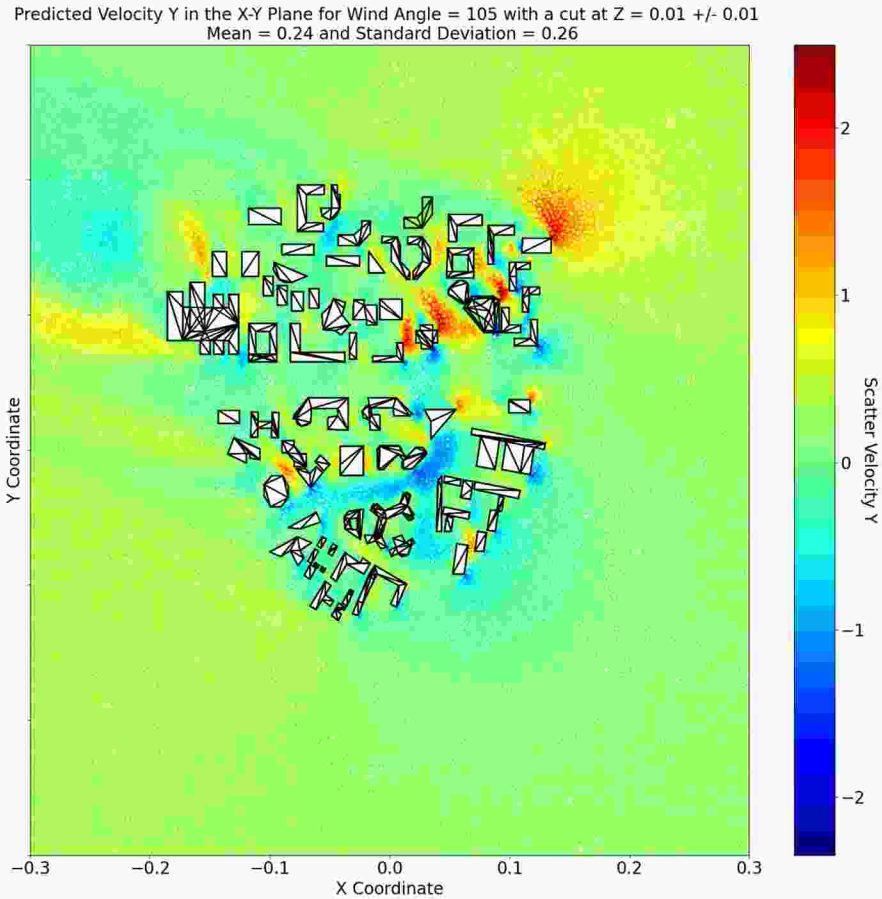


Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

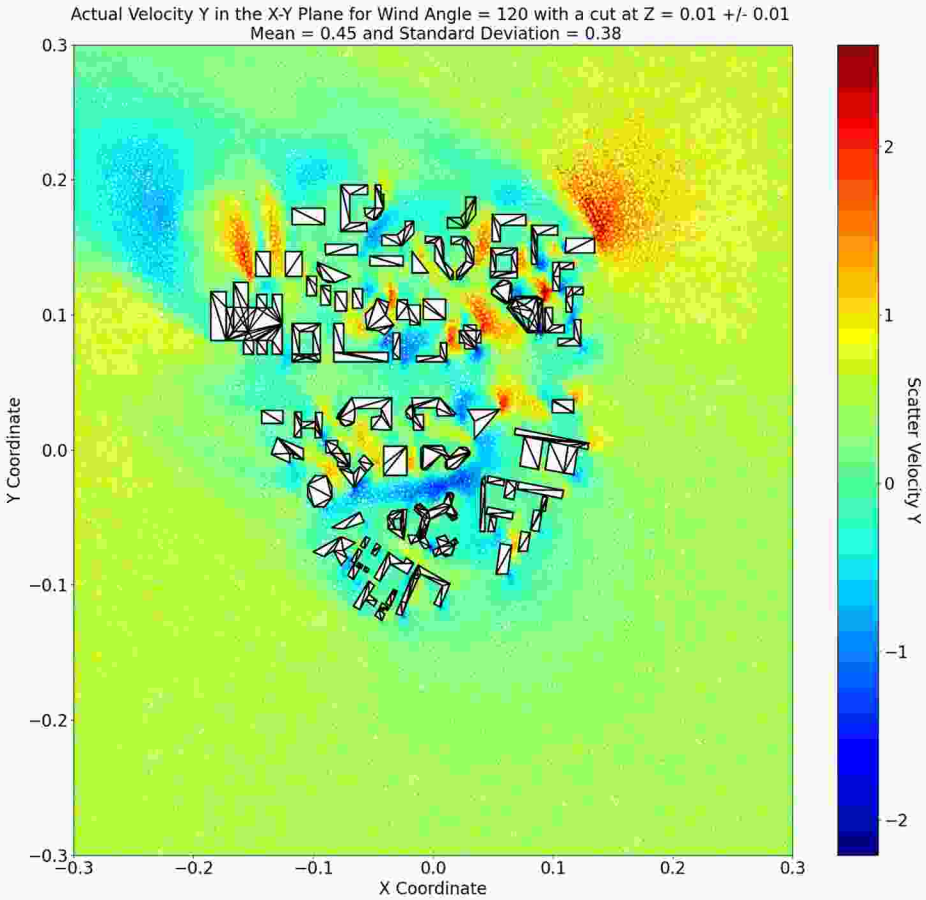


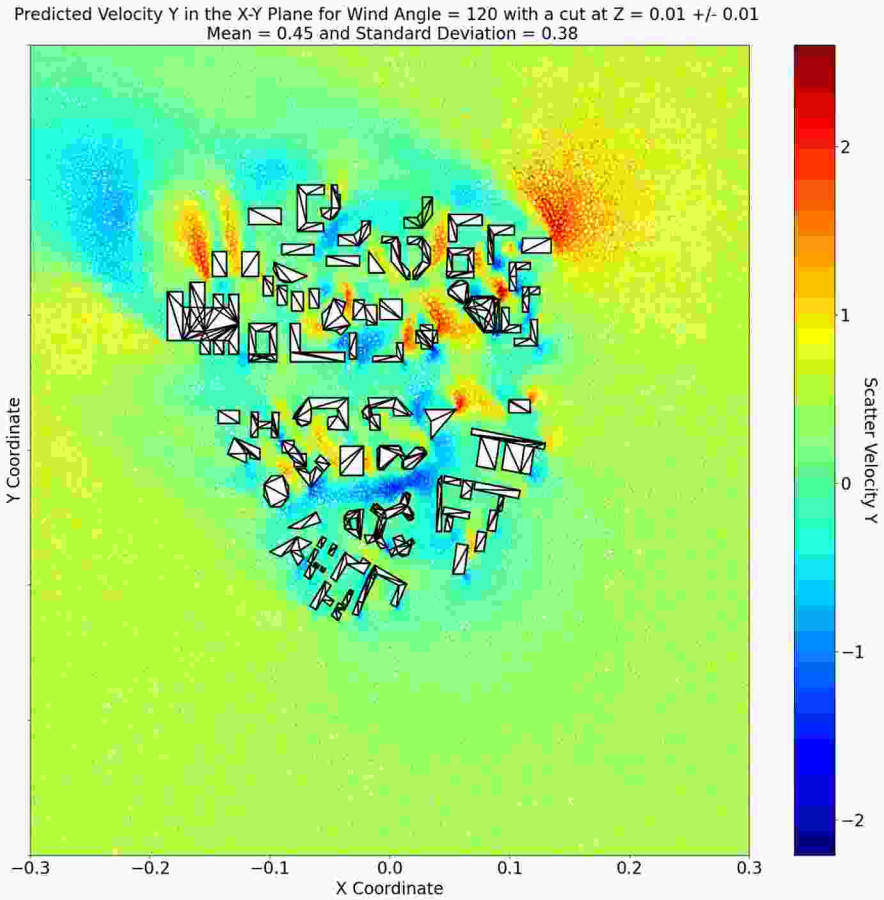
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



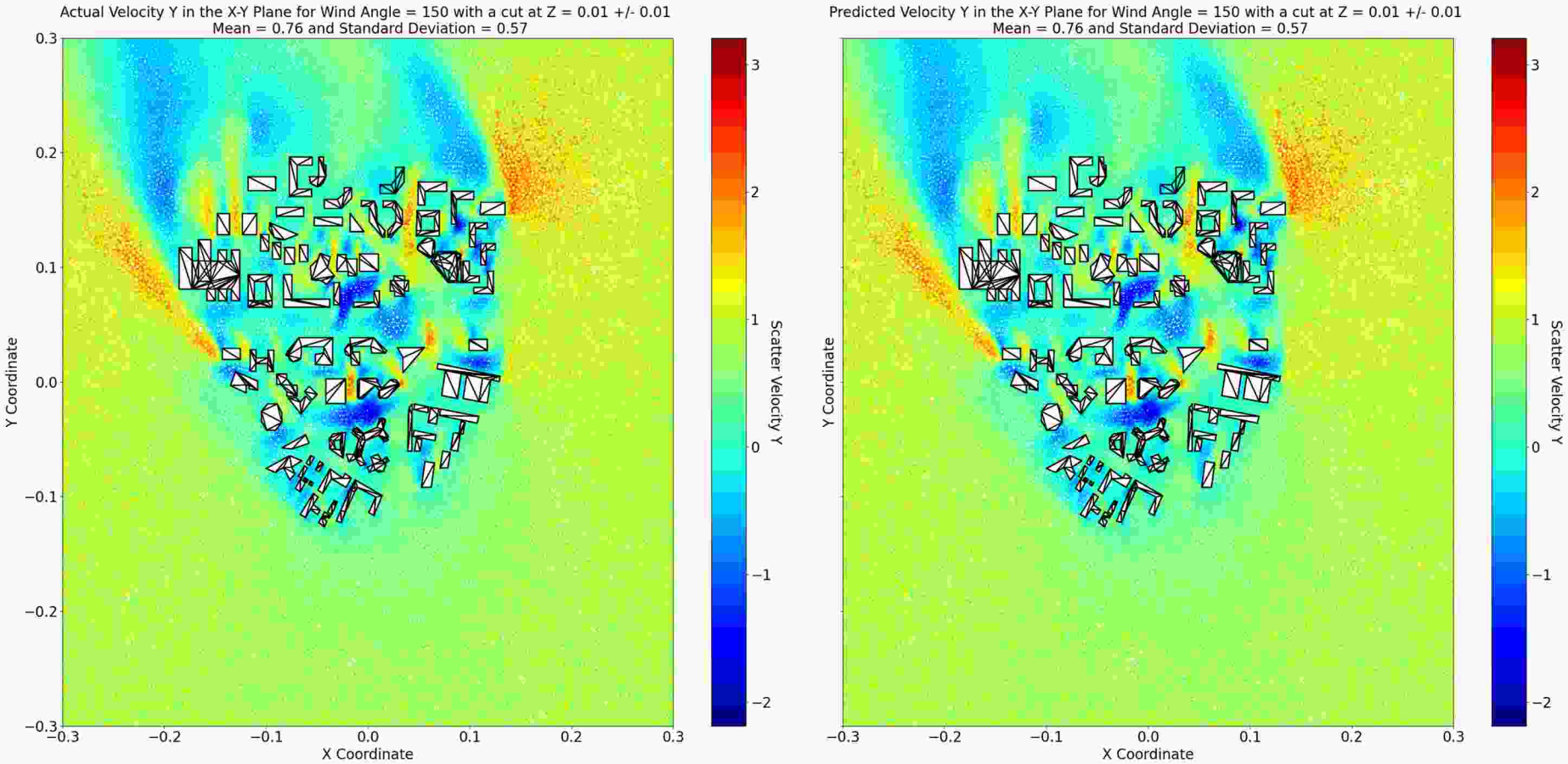


Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

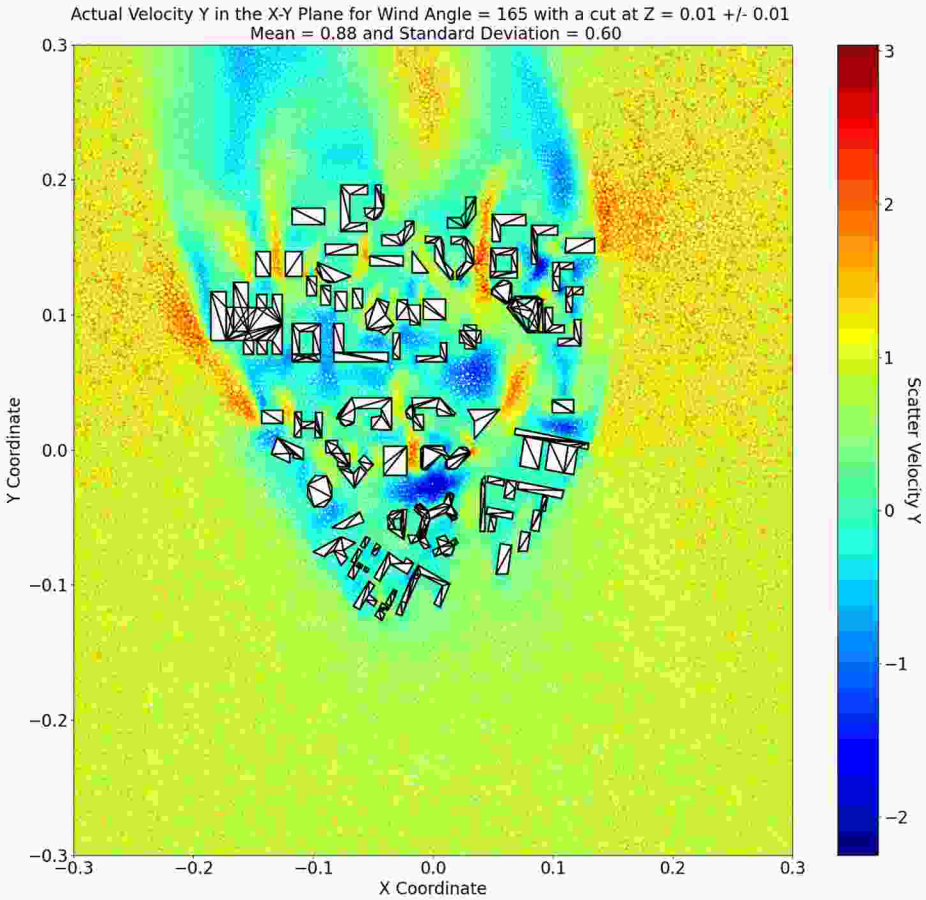


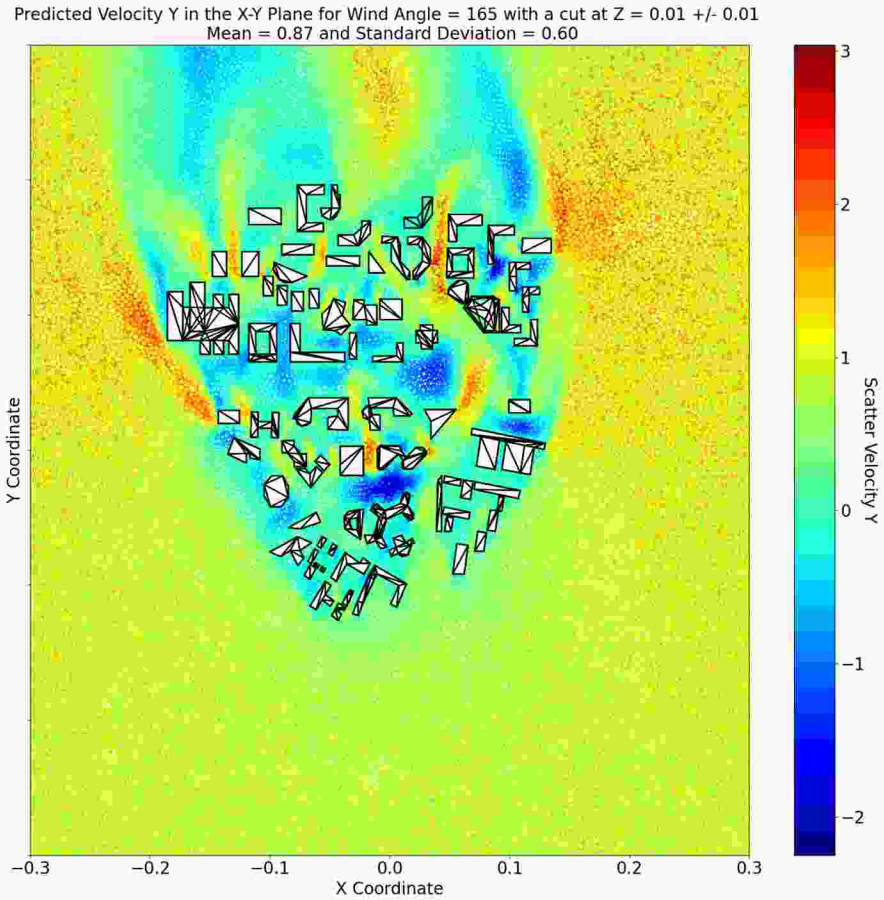


Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

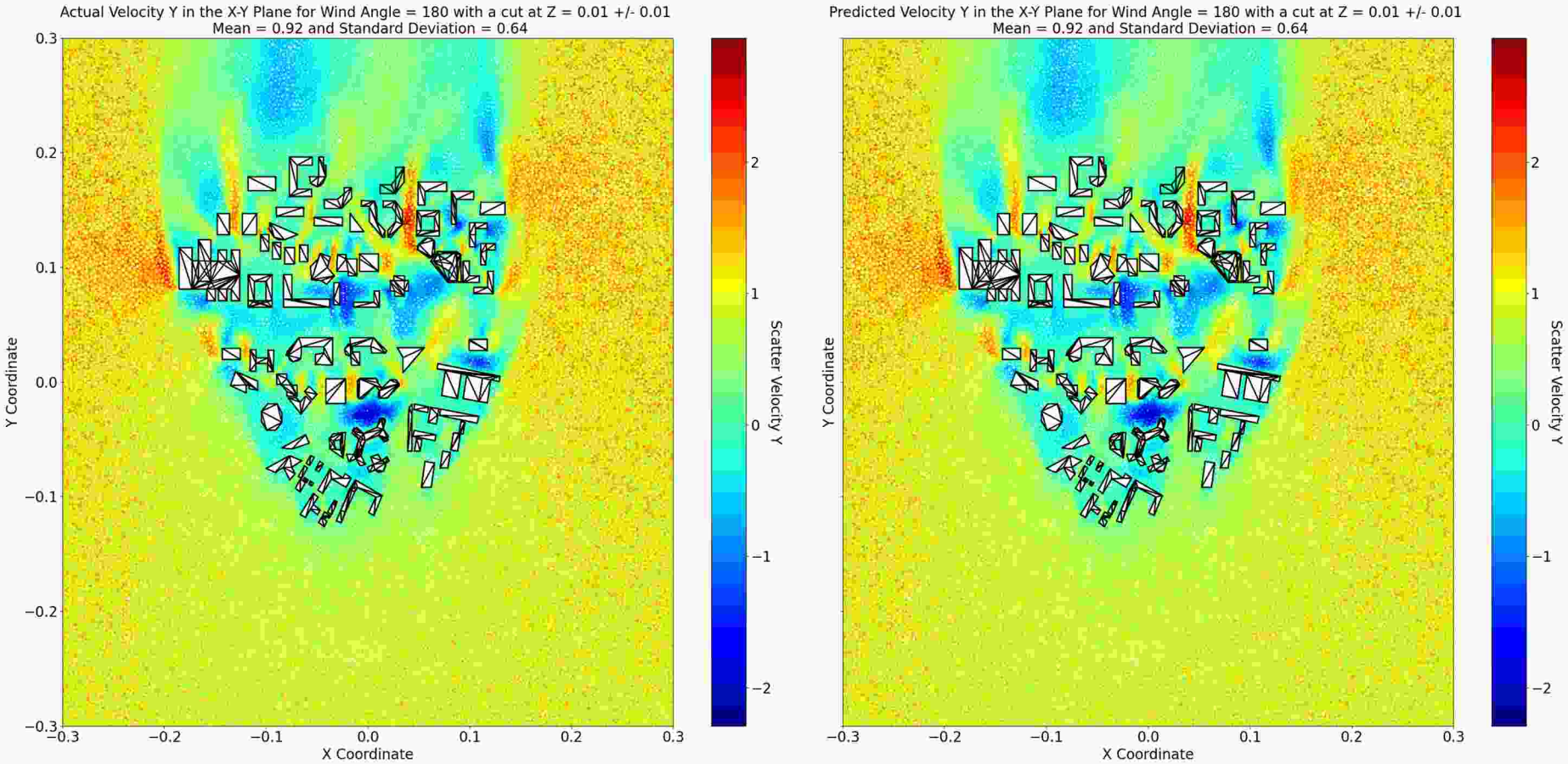


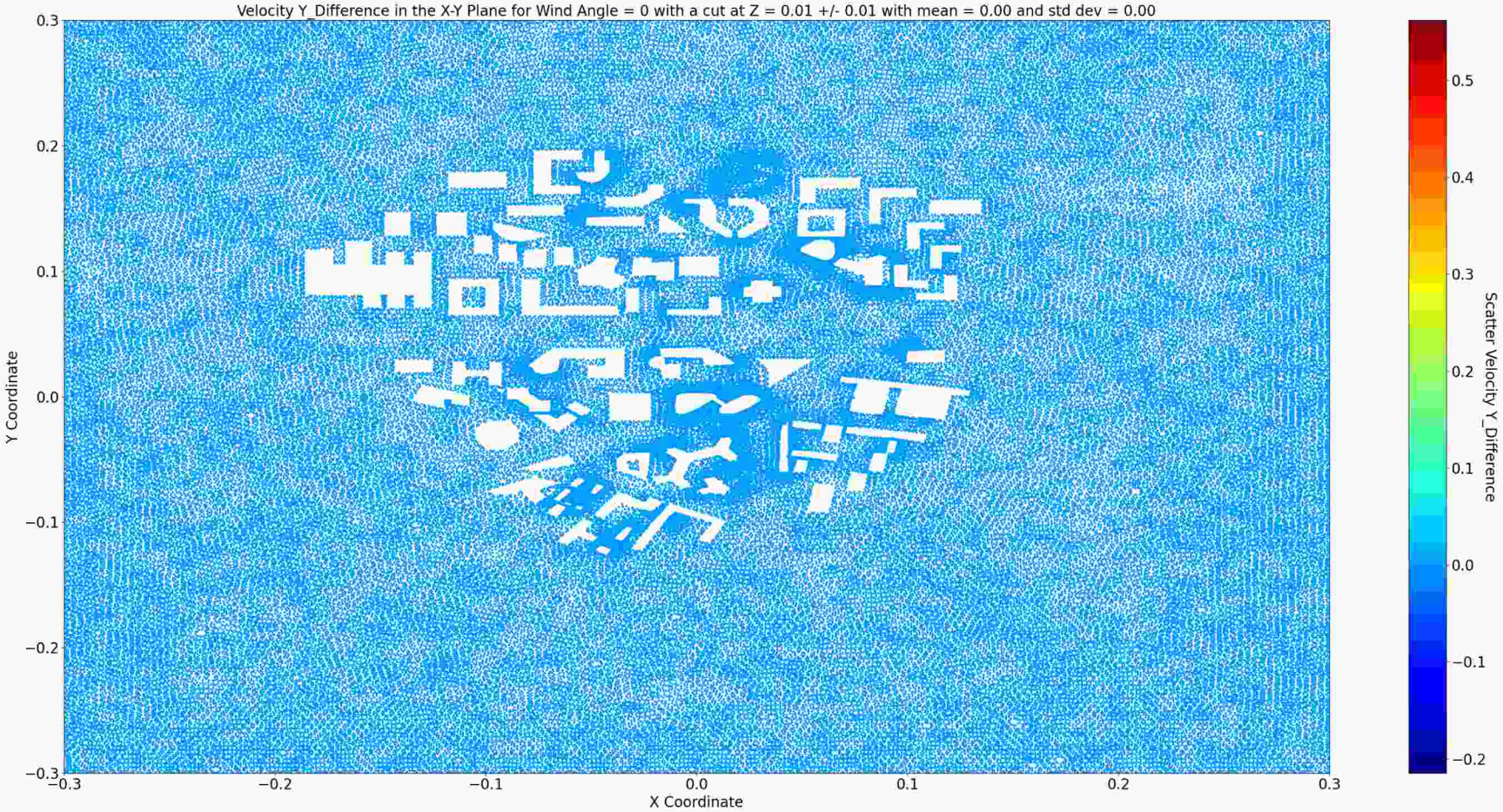
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

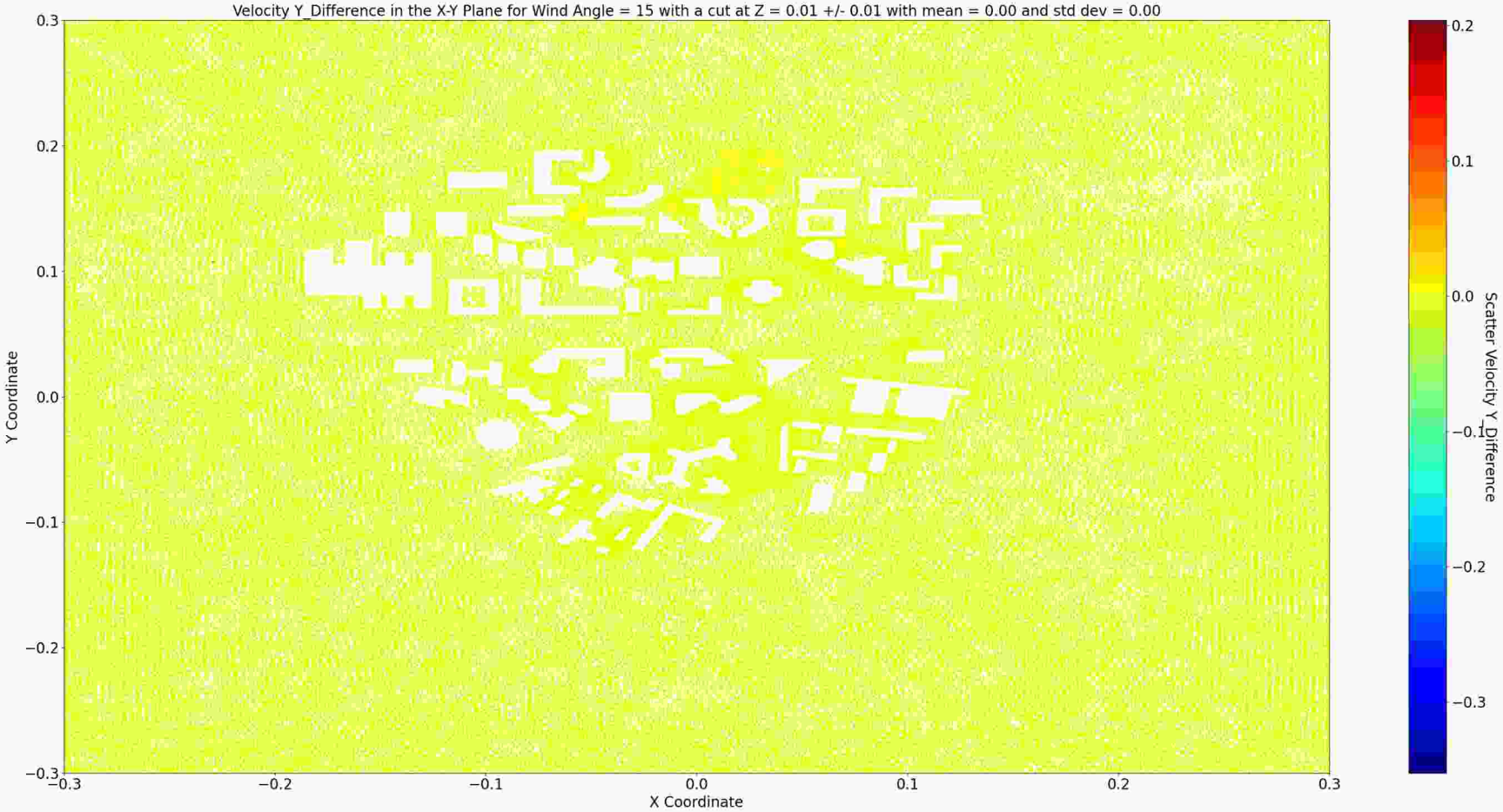


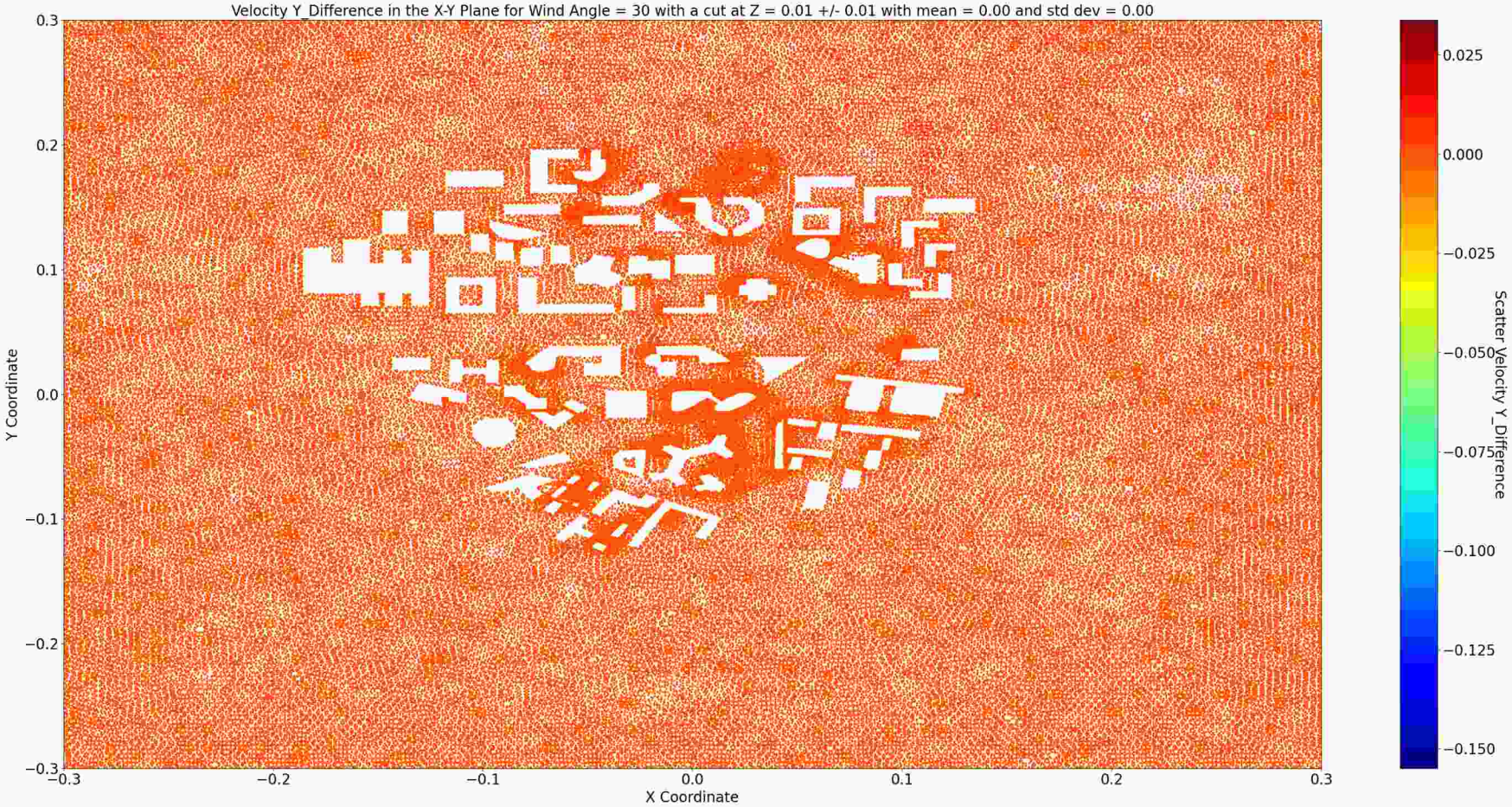


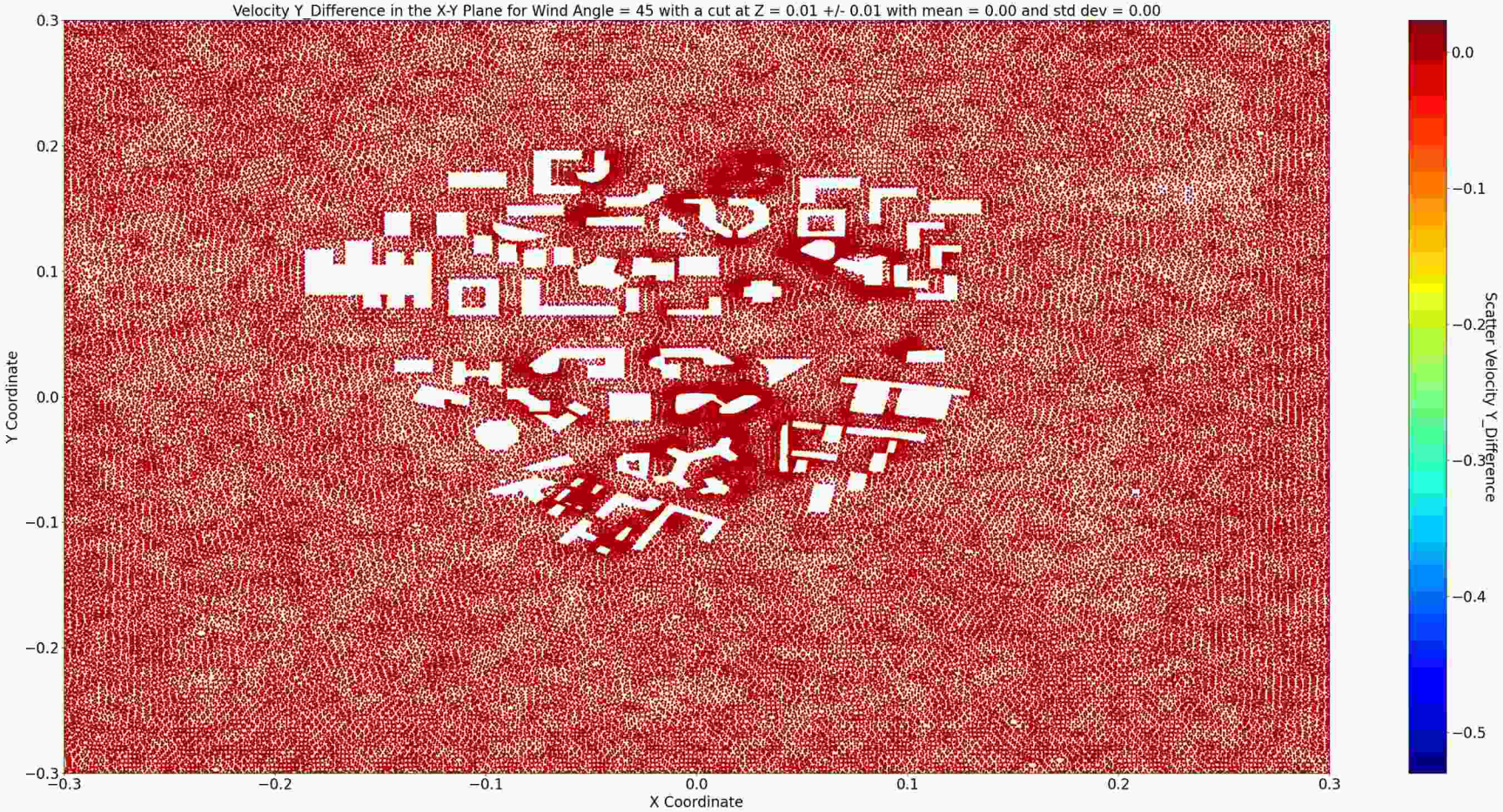
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

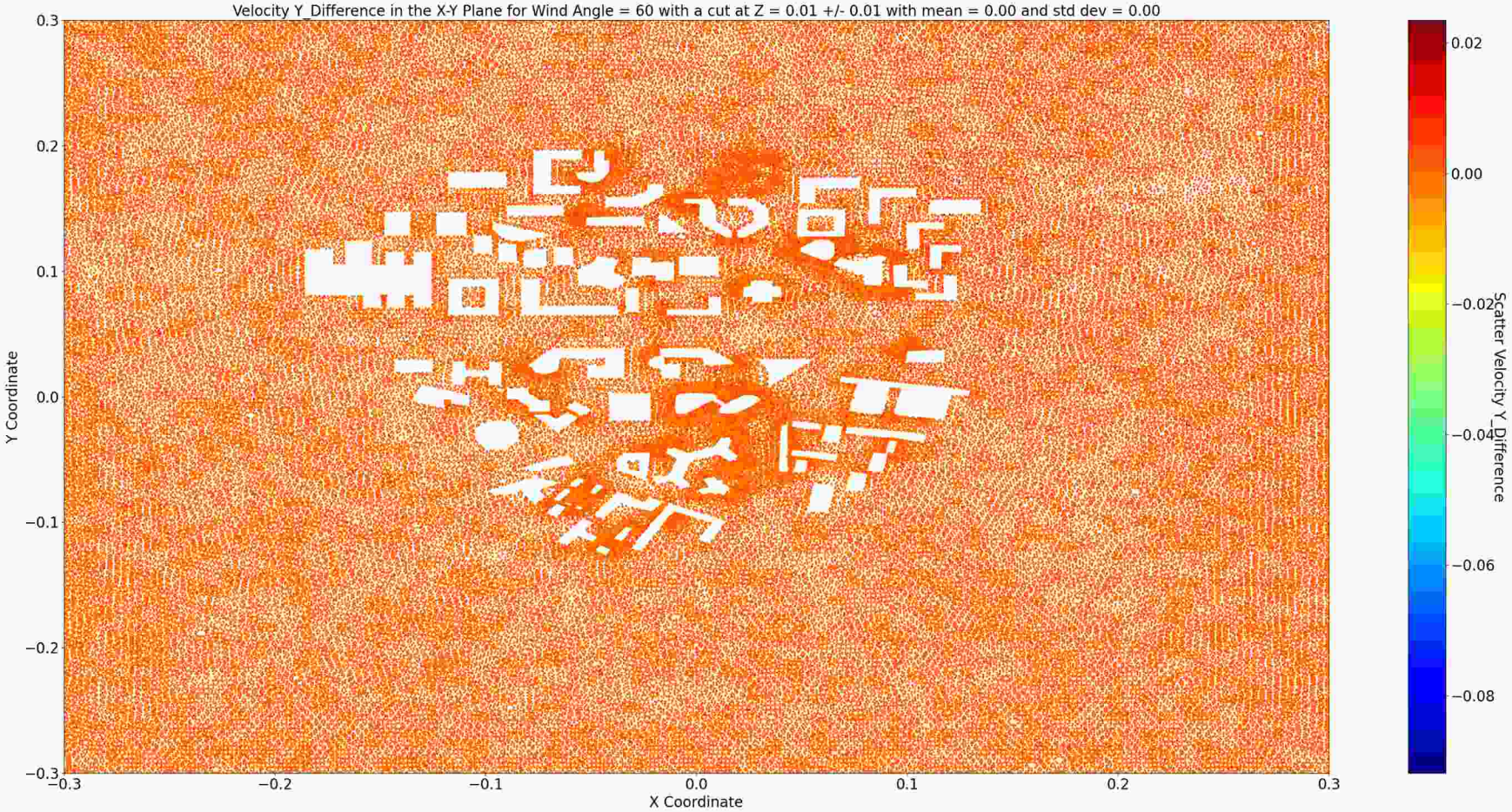


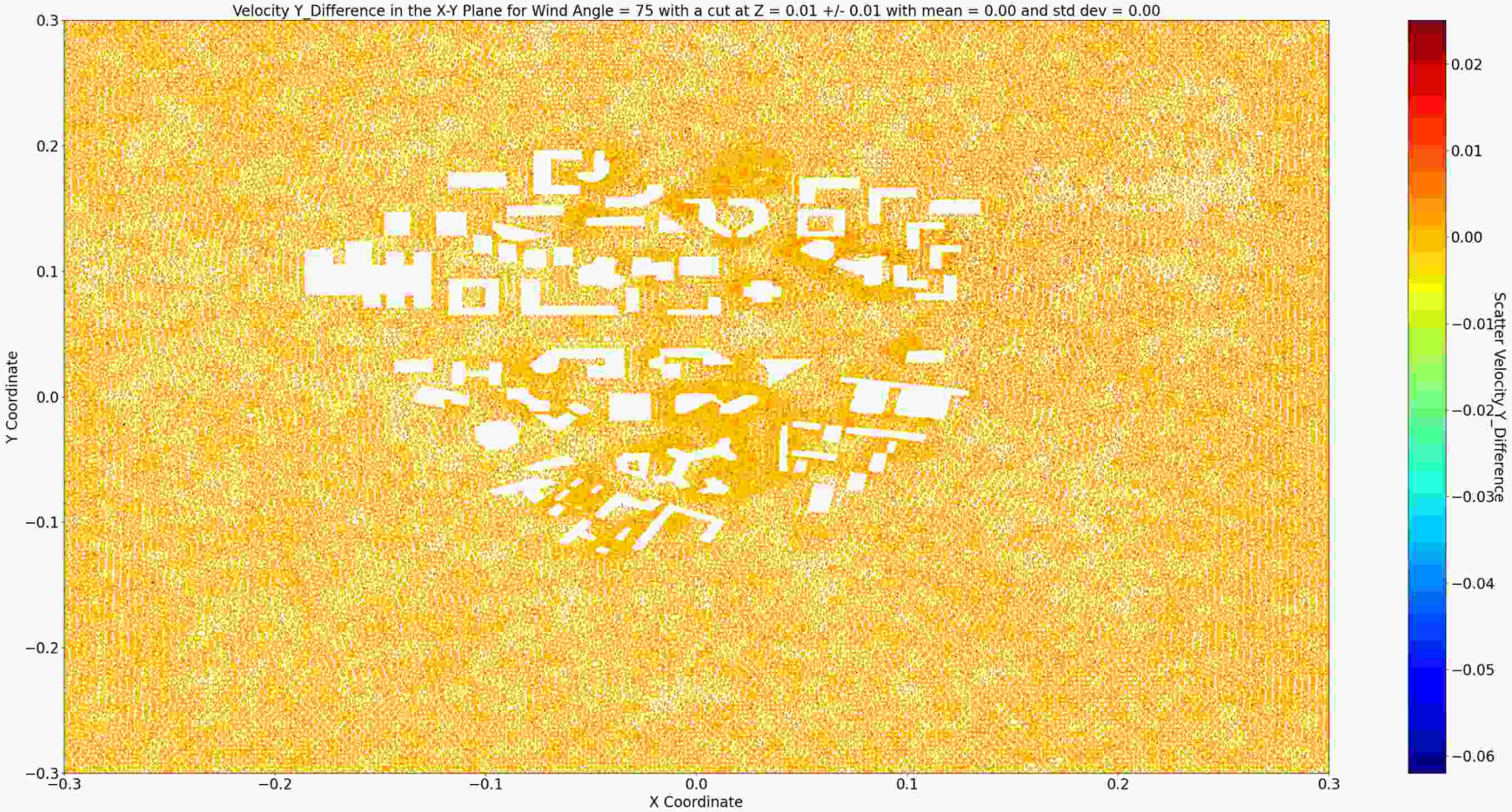

Velocity Y_Difference in the X-Y Plane for Wind Angle = 0 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Y_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.5
0.4

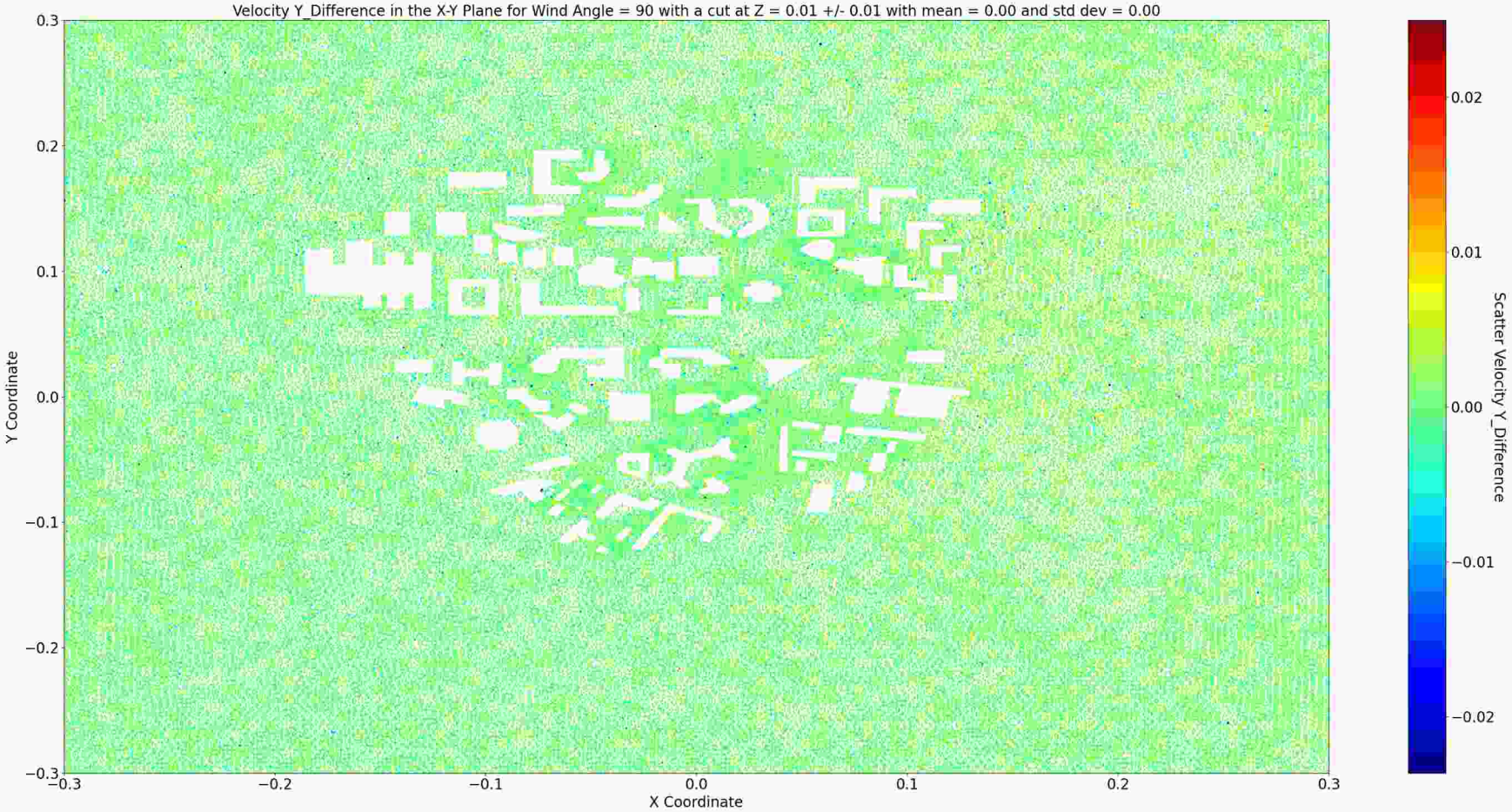

Velocity Y_Difference in the X-Y Plane for Wind Angle = 15 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Y_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3

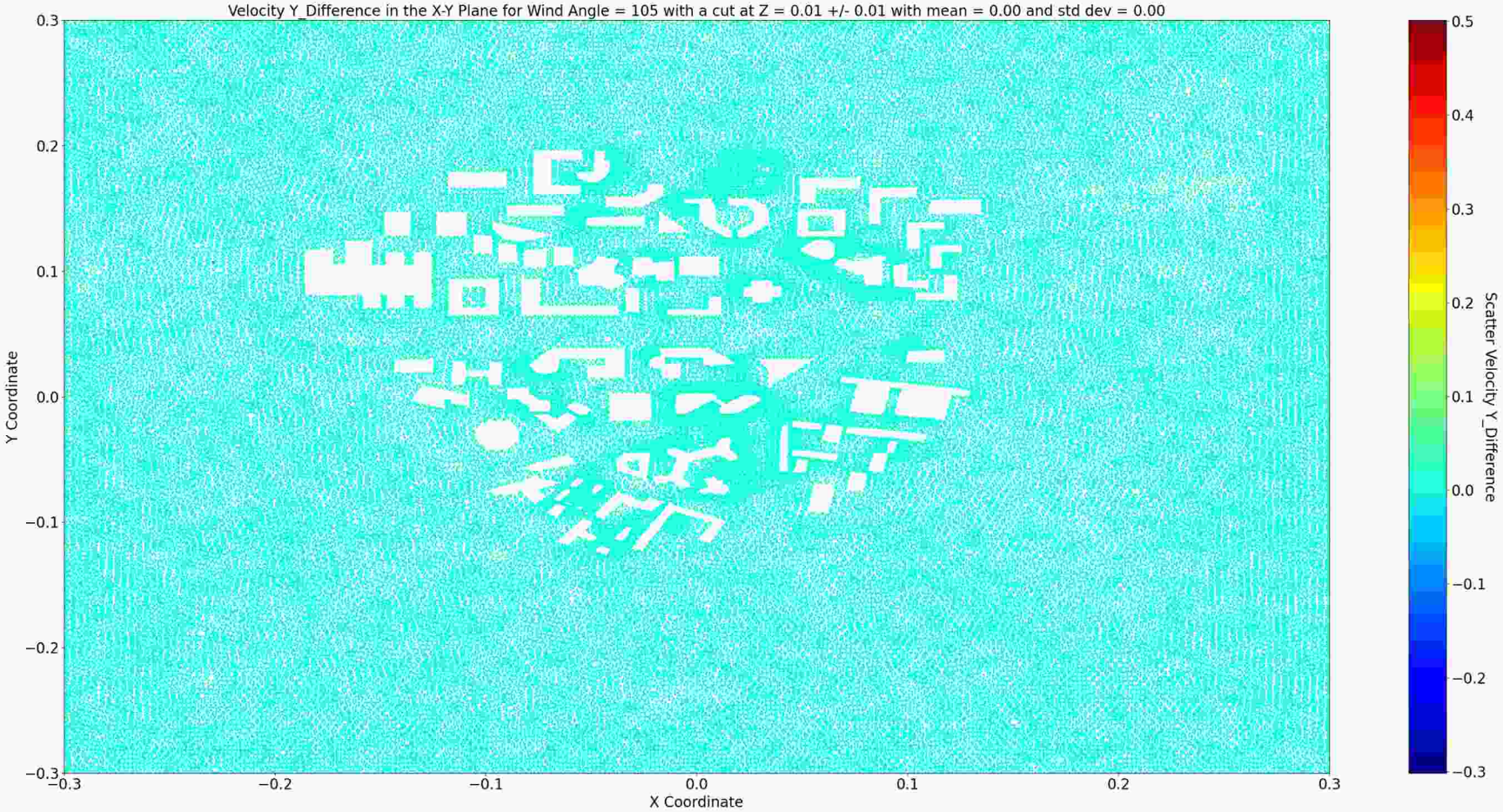

Velocity Y_Difference in the X-Y Plane for Wind Angle = 30 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Y_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.025
0.000
−0.025
−0.050
−0.075
−0.100
−0.125
−0.150

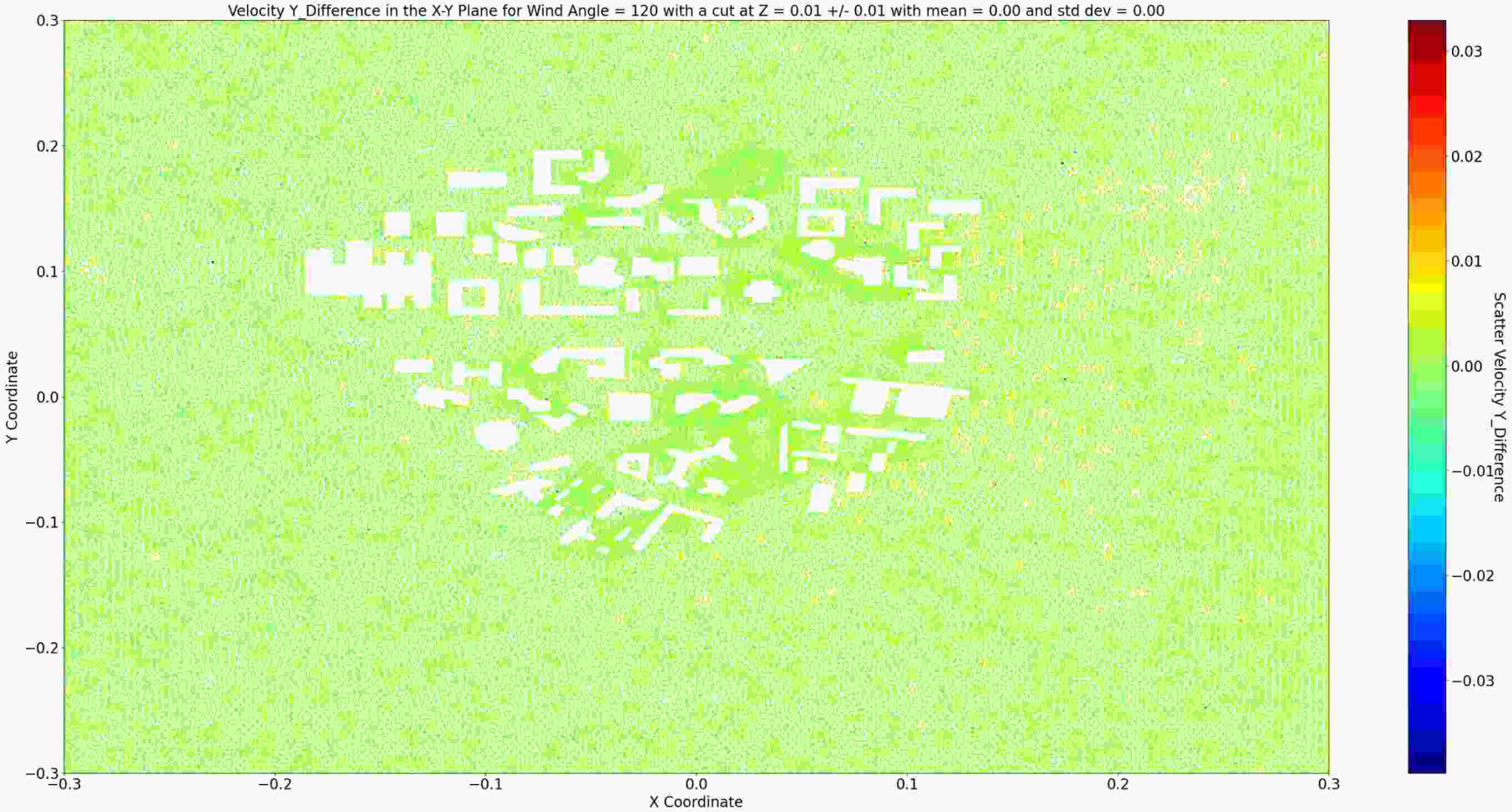

Velocity Y_Difference in the X-Y Plane for Wind Angle = 45 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
Scatter Velocity Y_Difference
0.0
−0.1
−0.2
−0.3
−0.4
−0.5

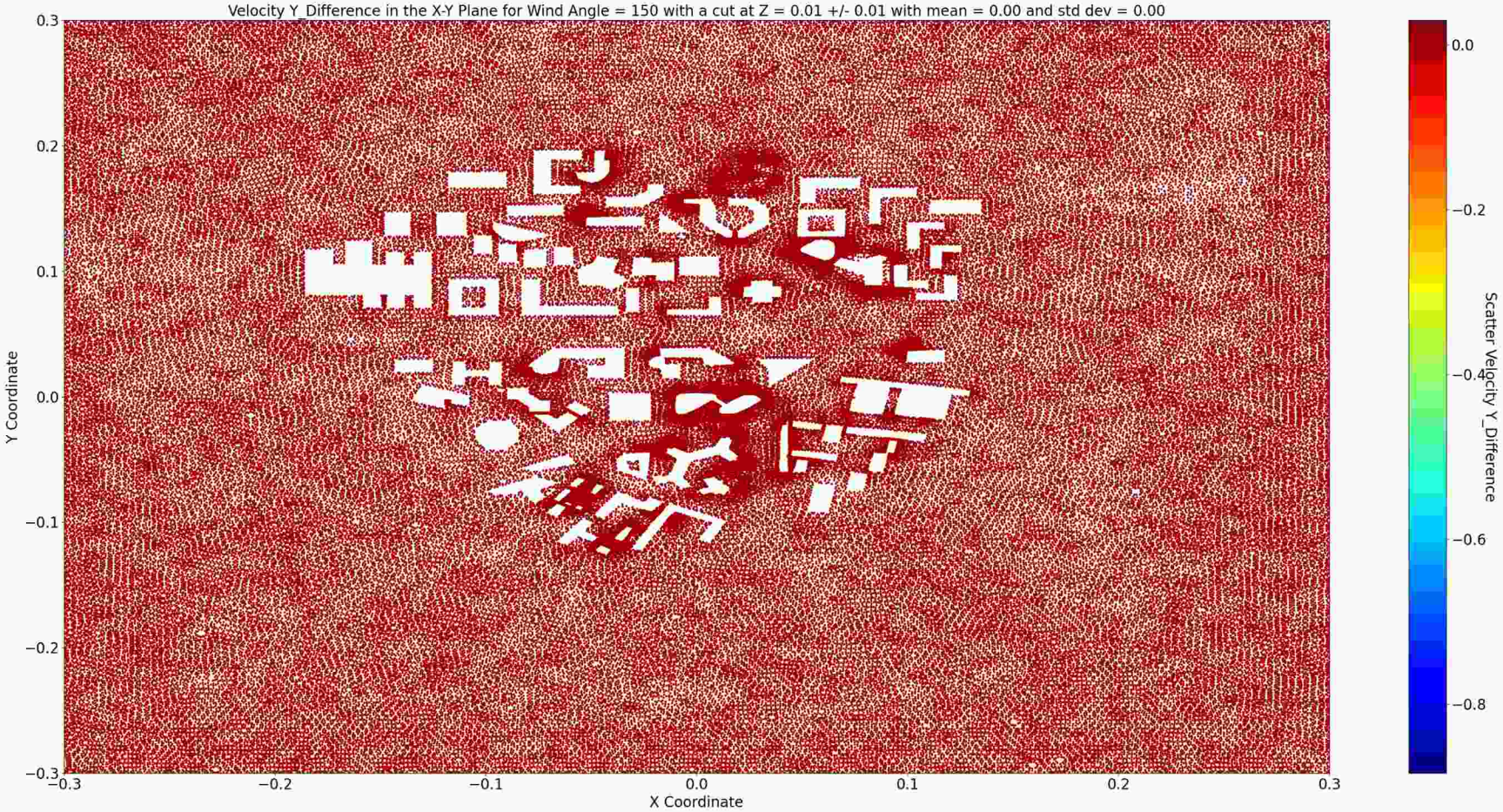

Velocity Y_Difference in the X-Y Plane for Wind Angle = 60 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity Y_Difference
0.02
0.00
−0.02
−0.04
−0.06
−0.08

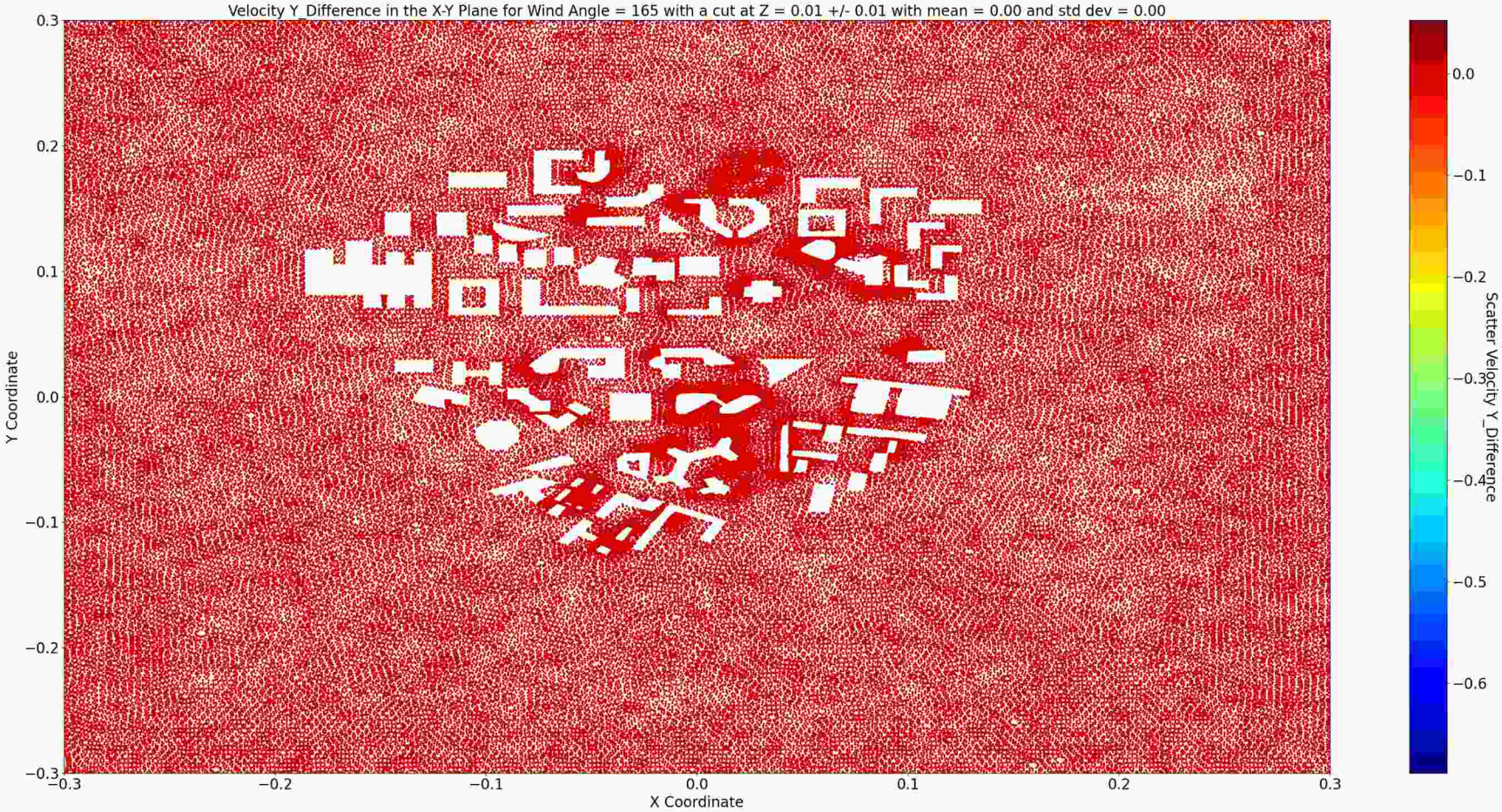

Velocity Y_Difference in the X-Y Plane for Wind Angle = 75 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Y_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.02
0.01
0.00
−0.01
−0.02
−0.03
−0.04
−0.05
−0.06

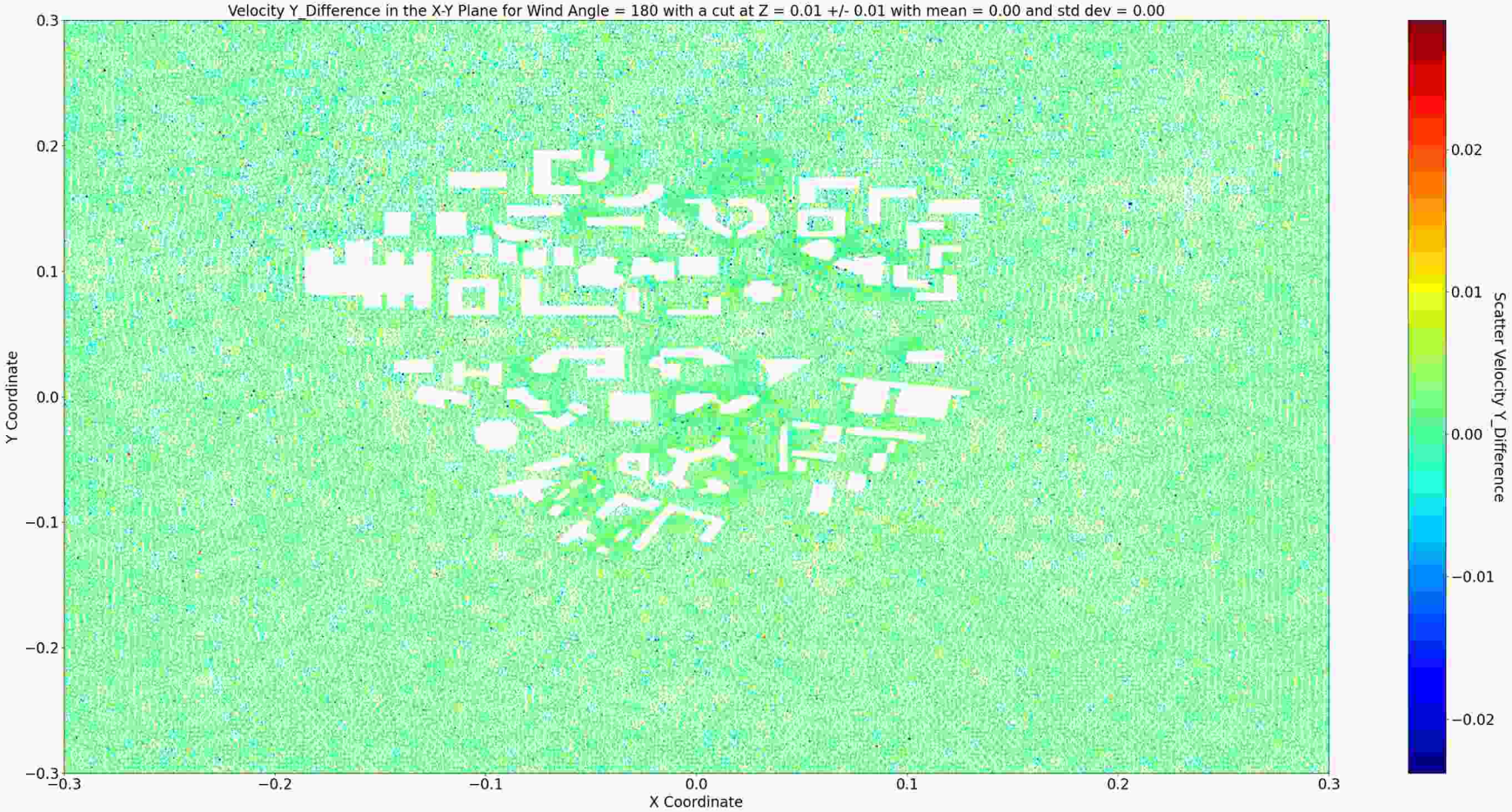

Velocity Y_Difference in the X-Y Plane for Wind Angle = 90 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Y_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.02
0.01
0.00
−0.01
−0.02

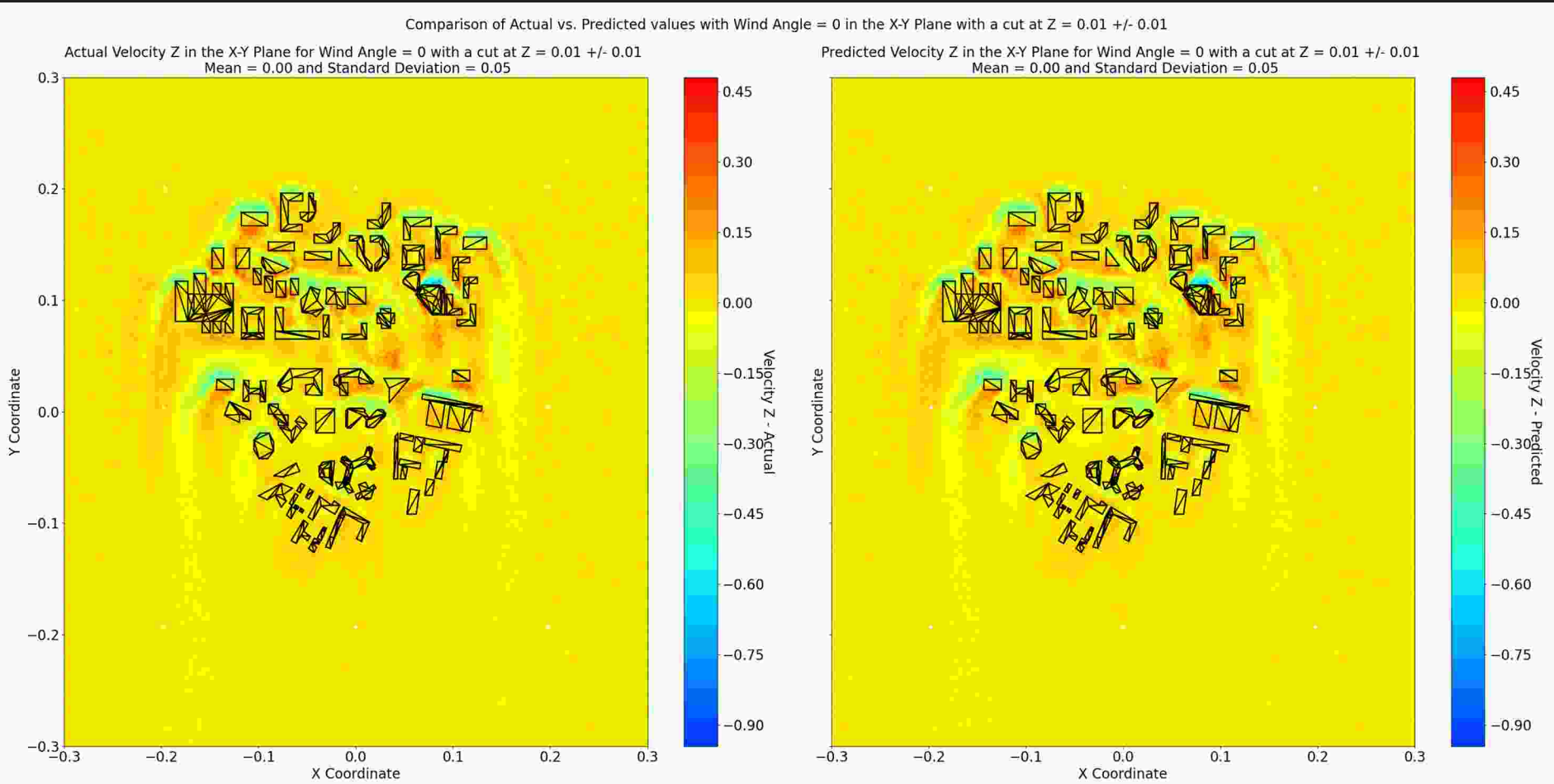

Velocity Y_Difference in the X-Y Plane for Wind Angle = 105 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Y_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.5
0.4

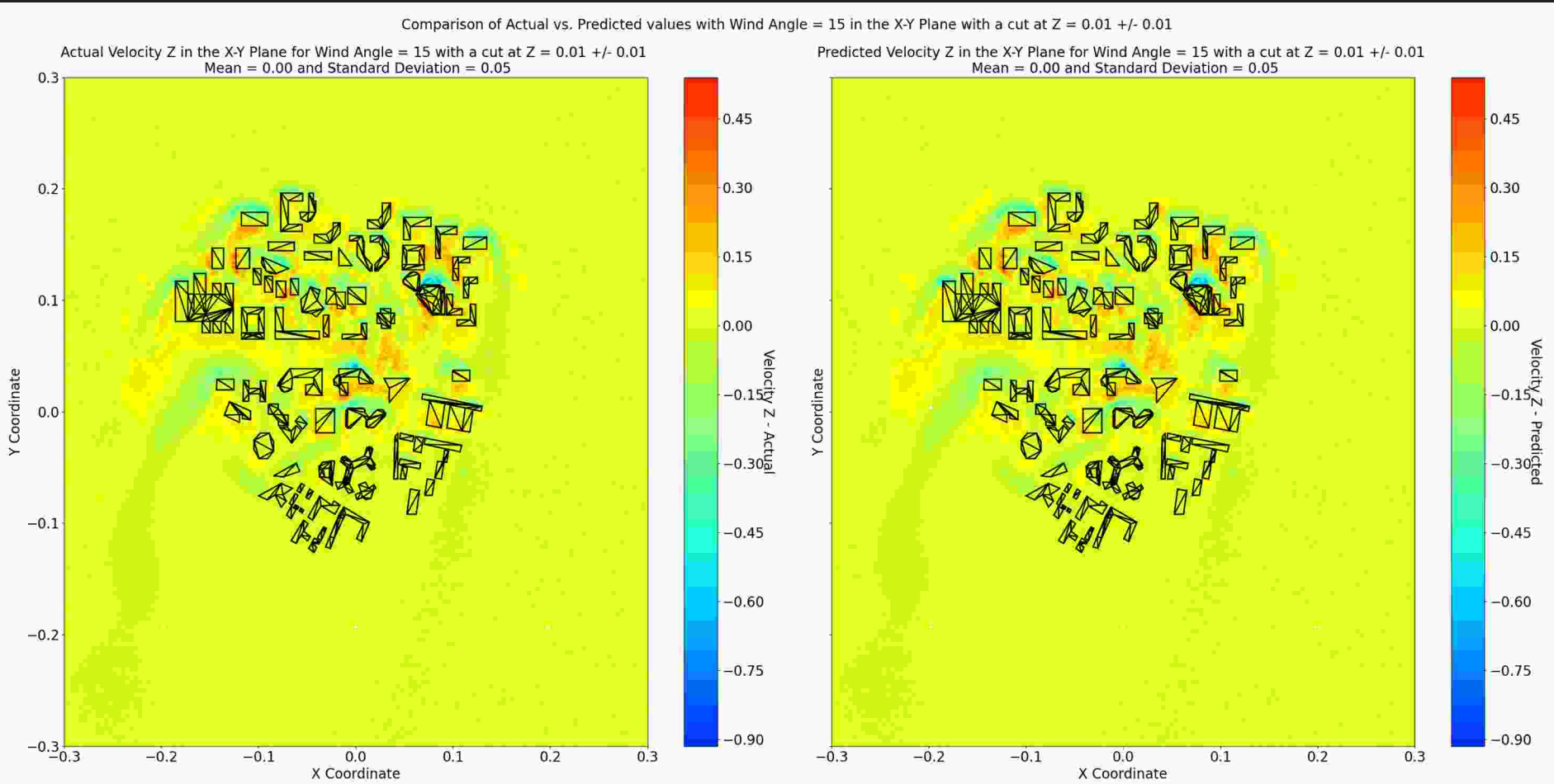

Velocity Y_Difference in the X-Y Plane for Wind Angle = 120 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Y_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.03
0.02
0.01
0.00
−0.01
−0.02
−0.03

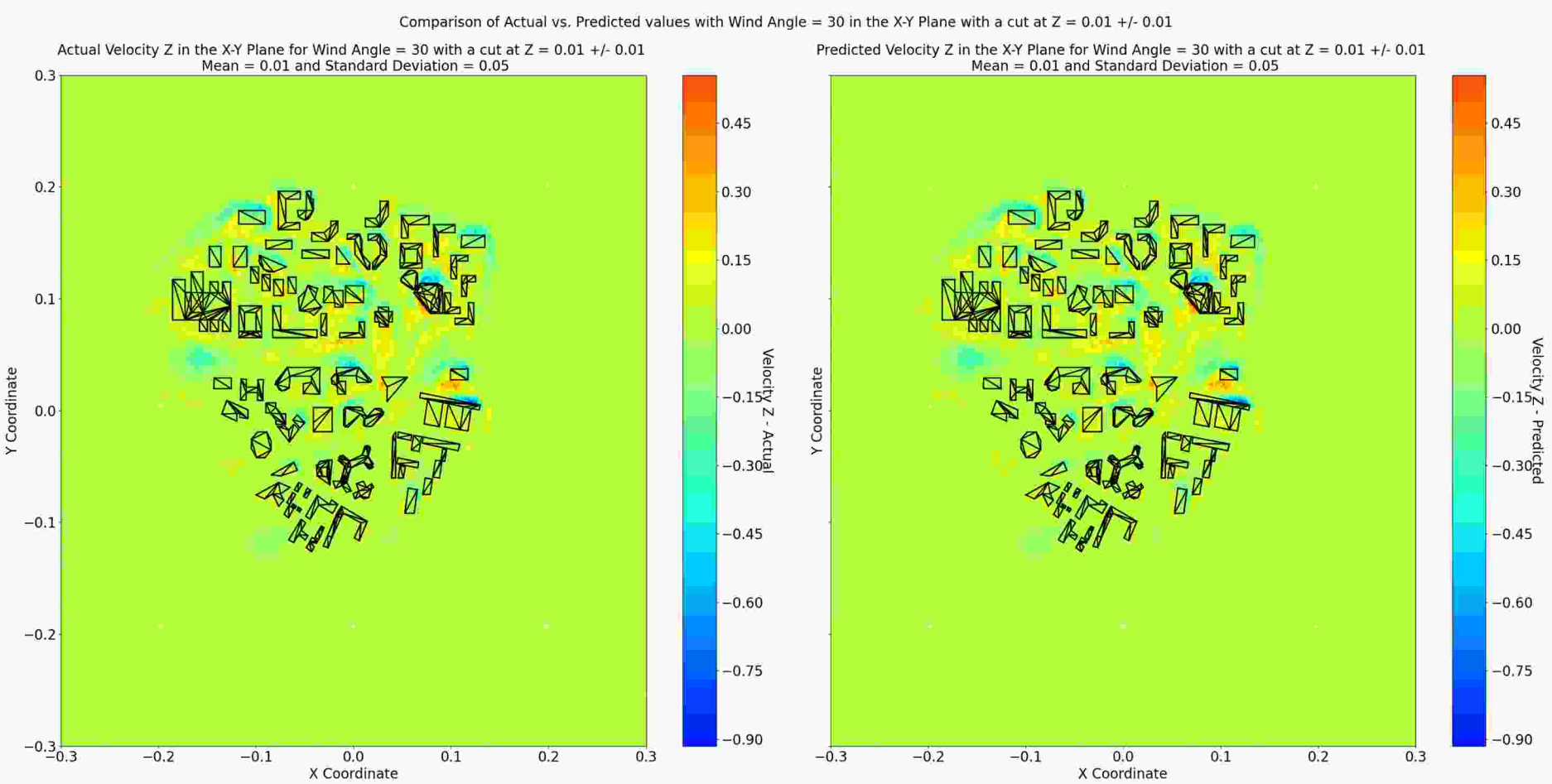

Velocity Y_Difference in the X-Y Plane for Wind Angle = 150 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Y_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0
−0.2
−0.4
−0.6
−0.8


Velocity Y_Difference in the X-Y Plane for Wind Angle = 165 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Y_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6

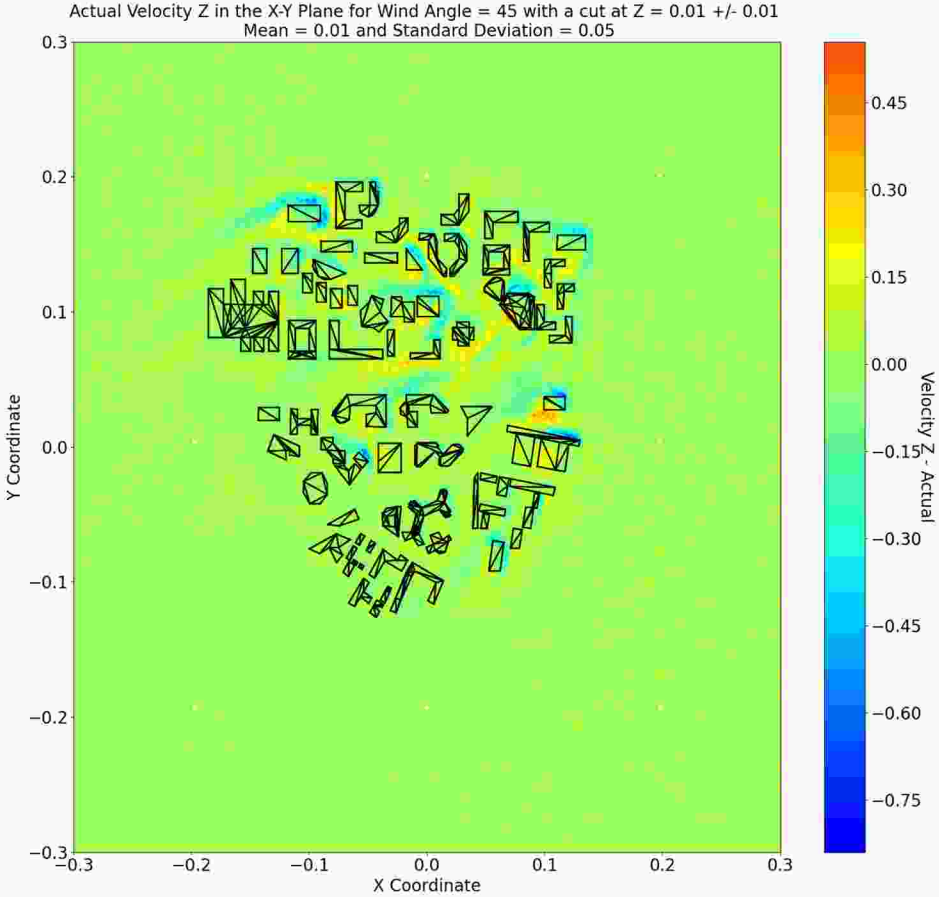

Velocity Y_Difference in the X-Y Plane for Wind Angle = 180 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Y_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.02
0.01
0.00
−0.01
−0.02

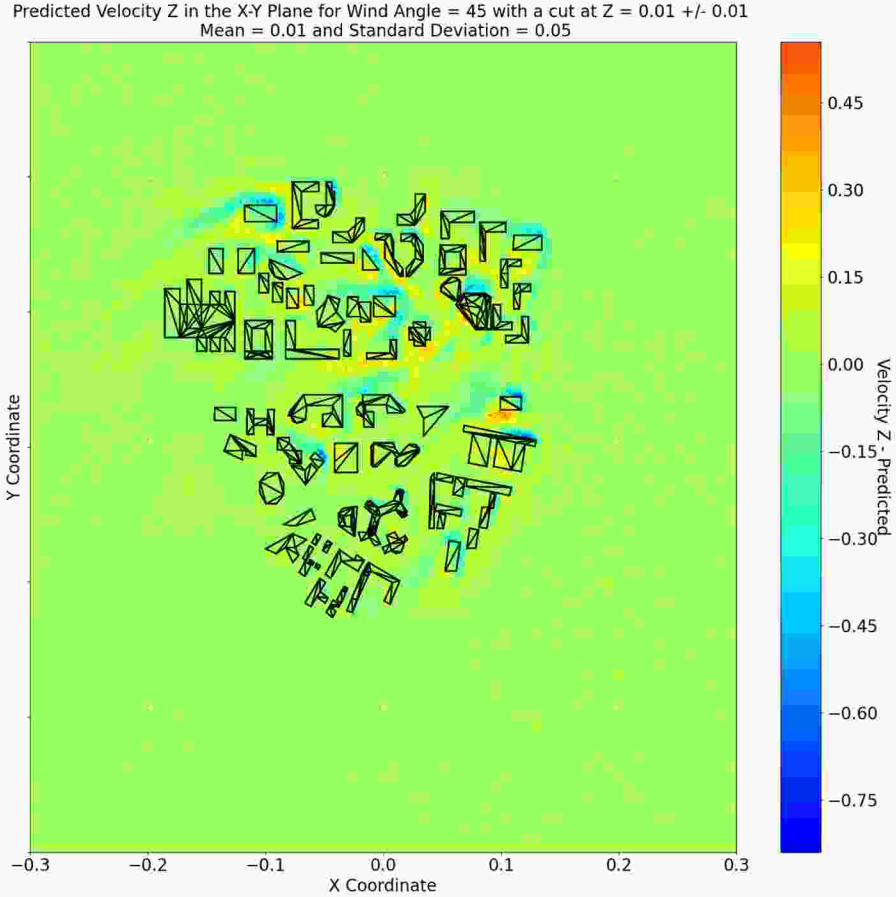

Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual Velocity Z in the X-Y Plane for Wind Angle = 0 with a cut at Z = 0.01 +/- 0.01
Mean = 0.00 and Standard Deviation = 0.05
Predicted Velocity Z in the X-Y Plane for Wind Angle = 0 with a cut at Z = 0.01 +/- 0.01
Mean = 0.00 and Standard Deviation = 0.05
Y Coordinate
X Coordinate
Velocity Z - Actual
Velocity Z - Predicted
0.45
0.30
0.15
0.00
−0.15
−0.30
−0.45
−0.60
−0.75
−0.90
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3


Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual Velocity Z in the X-Y Plane for Wind Angle = 15 with a cut at Z = 0.01 +/- 0.01
Mean = 0.00 and Standard Deviation = 0.05
Predicted Velocity Z in the X-Y Plane for Wind Angle = 15 with a cut at Z = 0.01 +/- 0.01
Mean = 0.00 and Standard Deviation = 0.05
Y Coordinate
X Coordinate
Velocity Z - Actual
Velocity Z - Predicted
0.45
0.30
0.15
0.00
−0.15
−0.30
−0.45
−0.60
−0.75
−0.90
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3

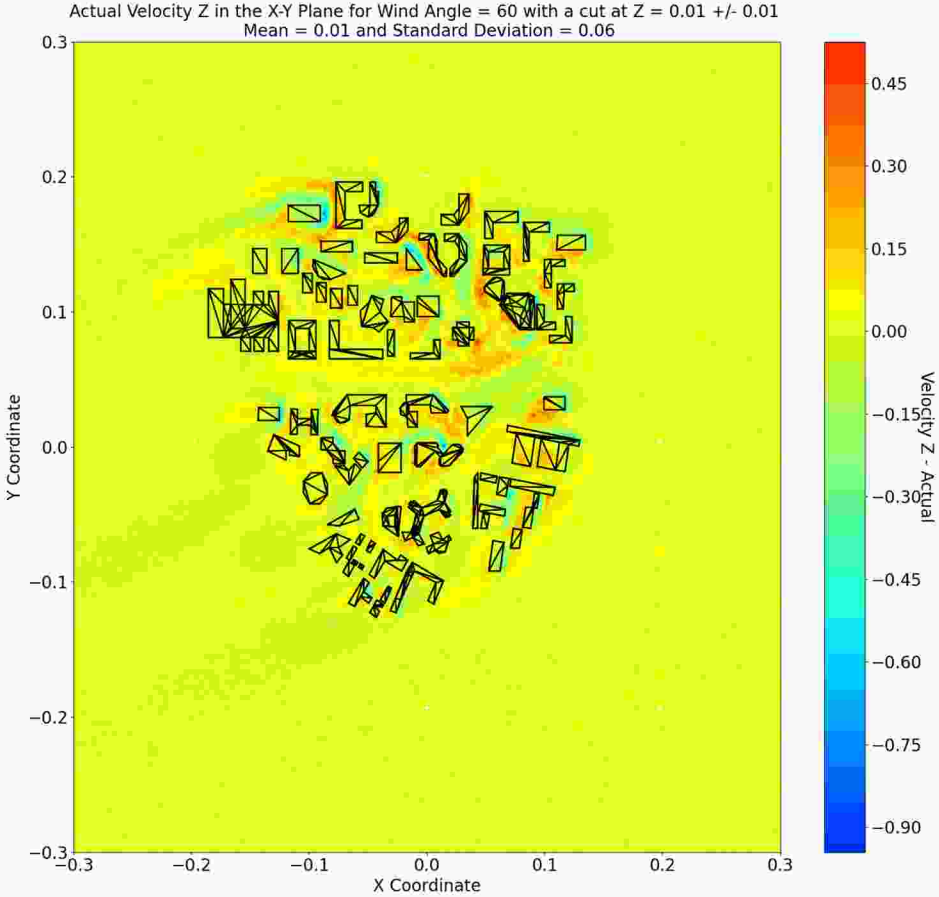

Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual Velocity Z in the X-Y Plane for Wind Angle = 30 with a cut at Z = 0.01 +/- 0.01
Mean = 0.01 and Standard Deviation = 0.05
Predicted Velocity Z in the X-Y Plane for Wind Angle = 30 with a cut at Z = 0.01 +/- 0.01
Mean = 0.01 and Standard Deviation = 0.05
Y Coordinate
X Coordinate
Velocity Z - Actual
Velocity Z - Predicted
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.45
0.30
0.15
0.00
−0.15
−0.30
−0.45
−0.60
−0.75
−0.90

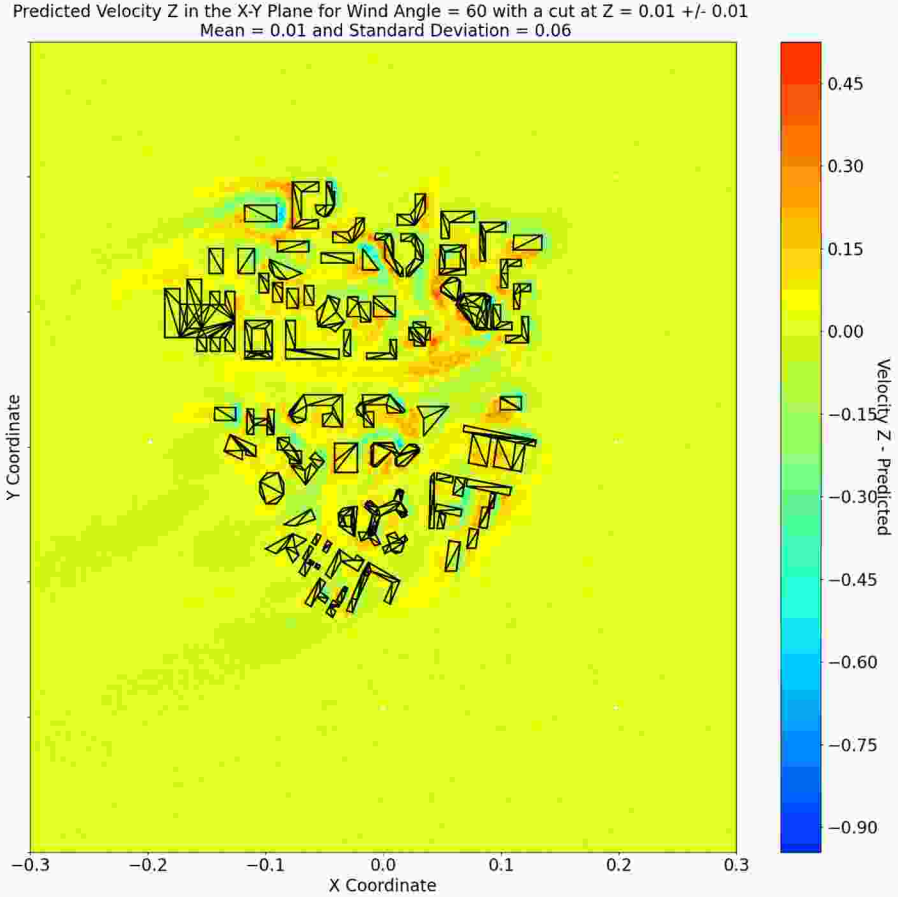
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

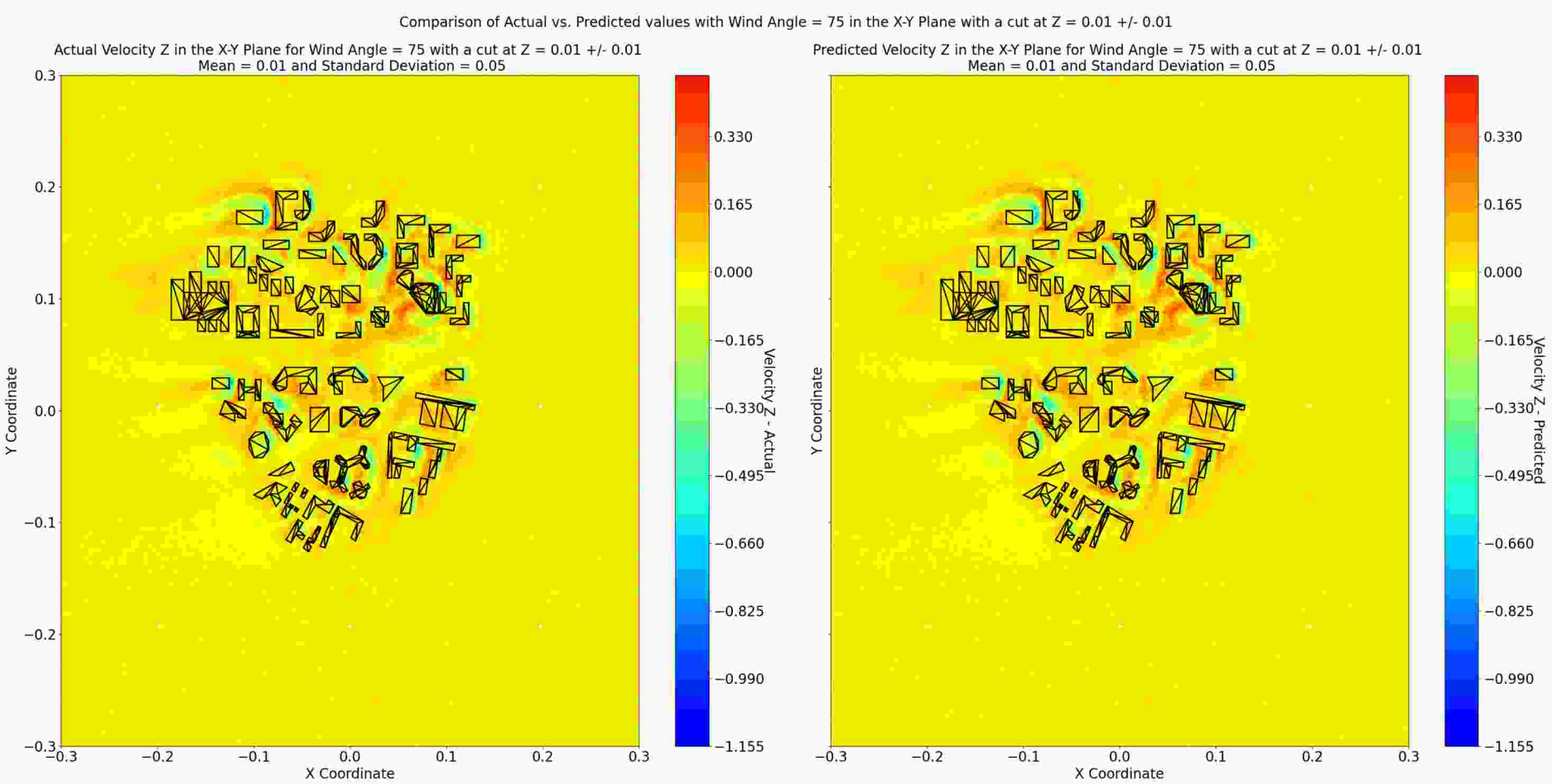




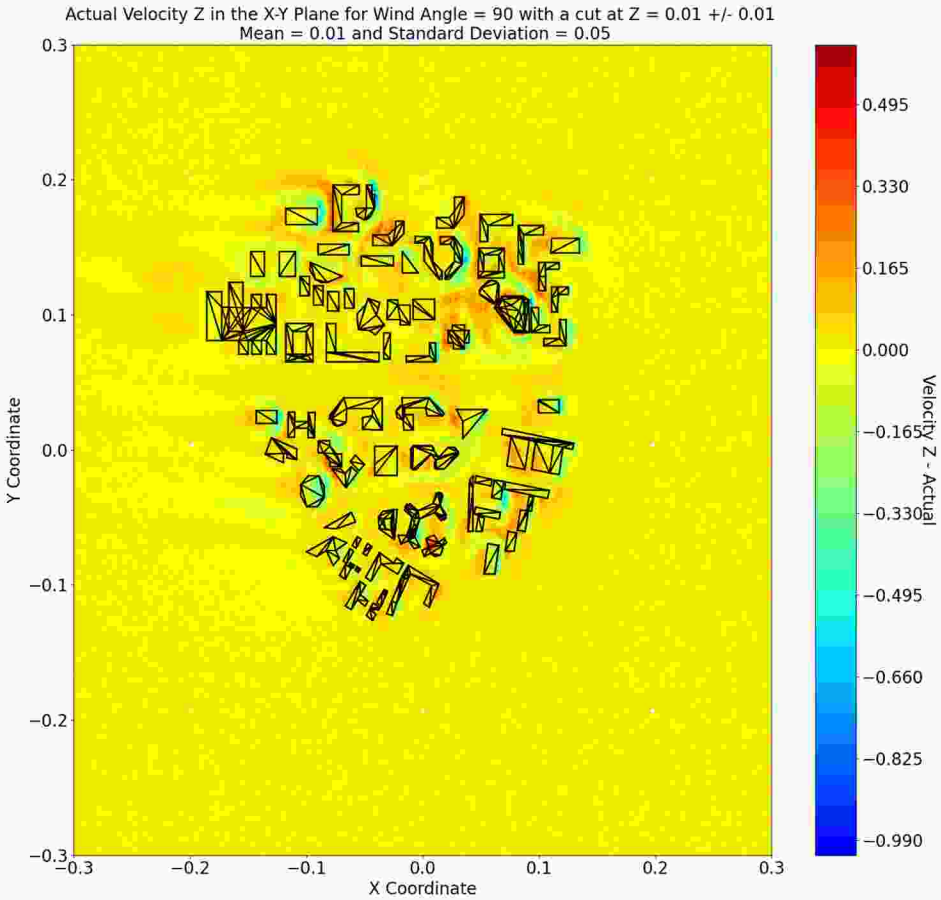
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

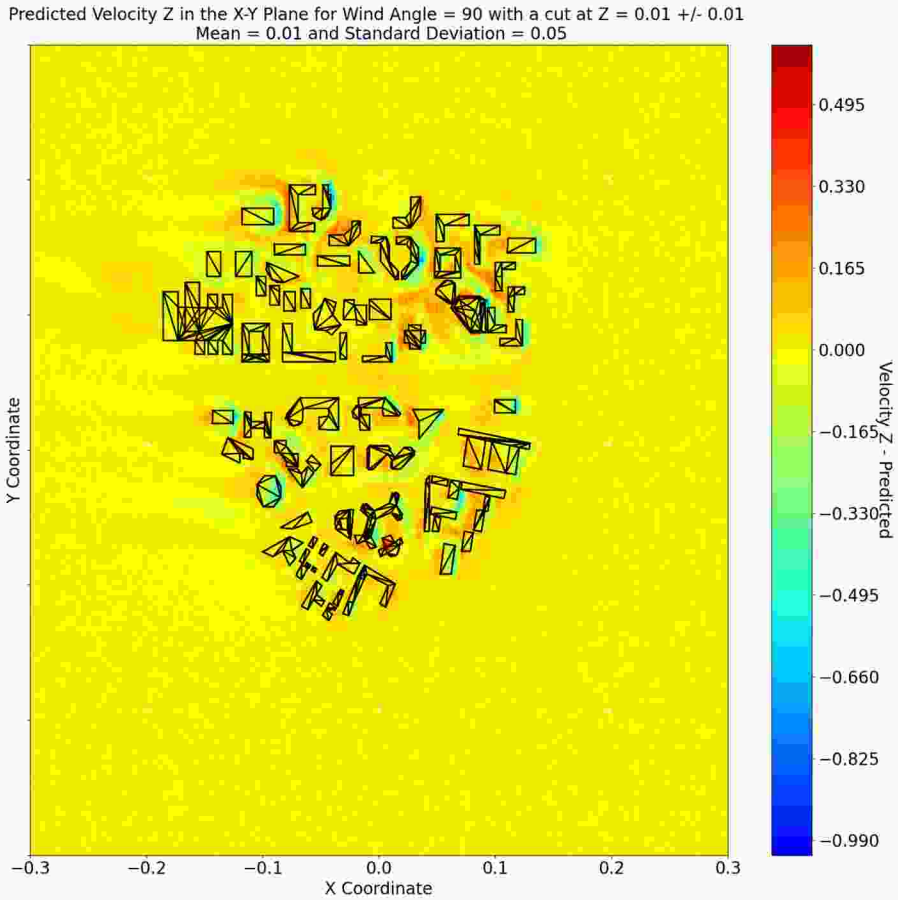




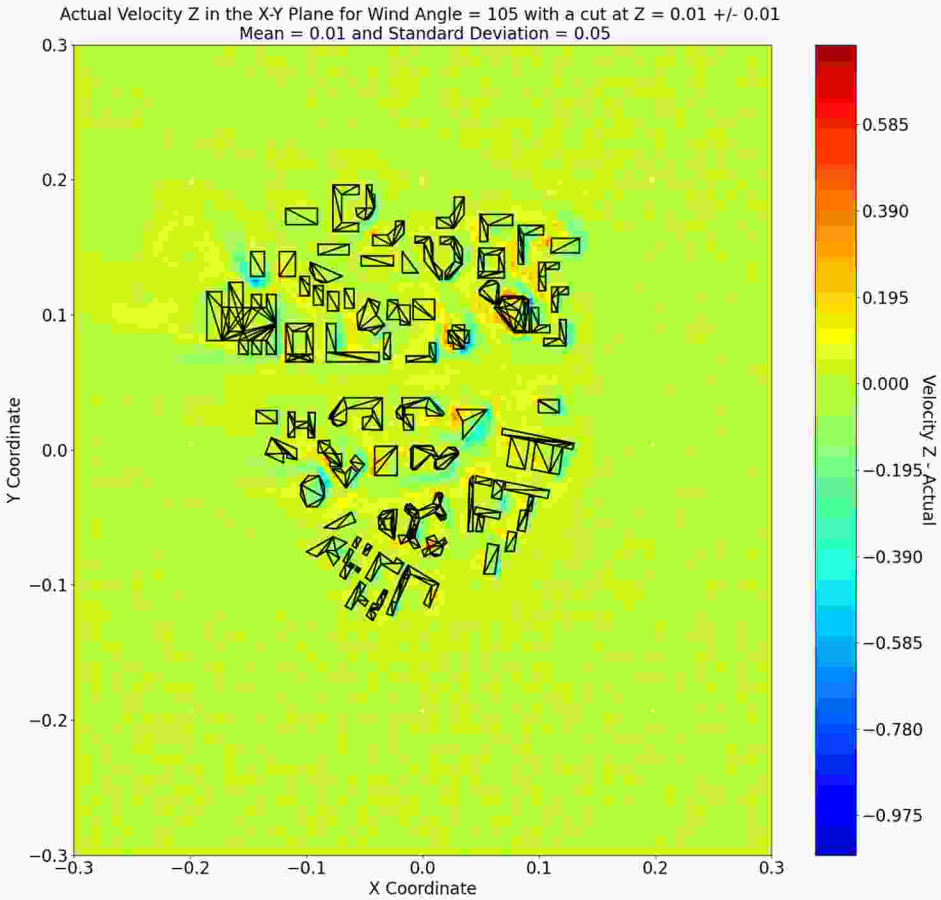

Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual Velocity Z in the X-Y Plane for Wind Angle = 75 with a cut at Z = 0.01 +/- 0.01
Mean = 0.01 and Standard Deviation = 0.05
Predicted Velocity Z in the X-Y Plane for Wind Angle = 75 with a cut at Z = 0.01 +/- 0.01
Mean = 0.01 and Standard Deviation = 0.05
Y Coordinate
X Coordinate
Velocity Z - Actual
Velocity Z - Predicted
0.330
0.165
0.000
−0.165
−0.330
−0.495
−0.660
−0.825
−0.990
−1.155
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3

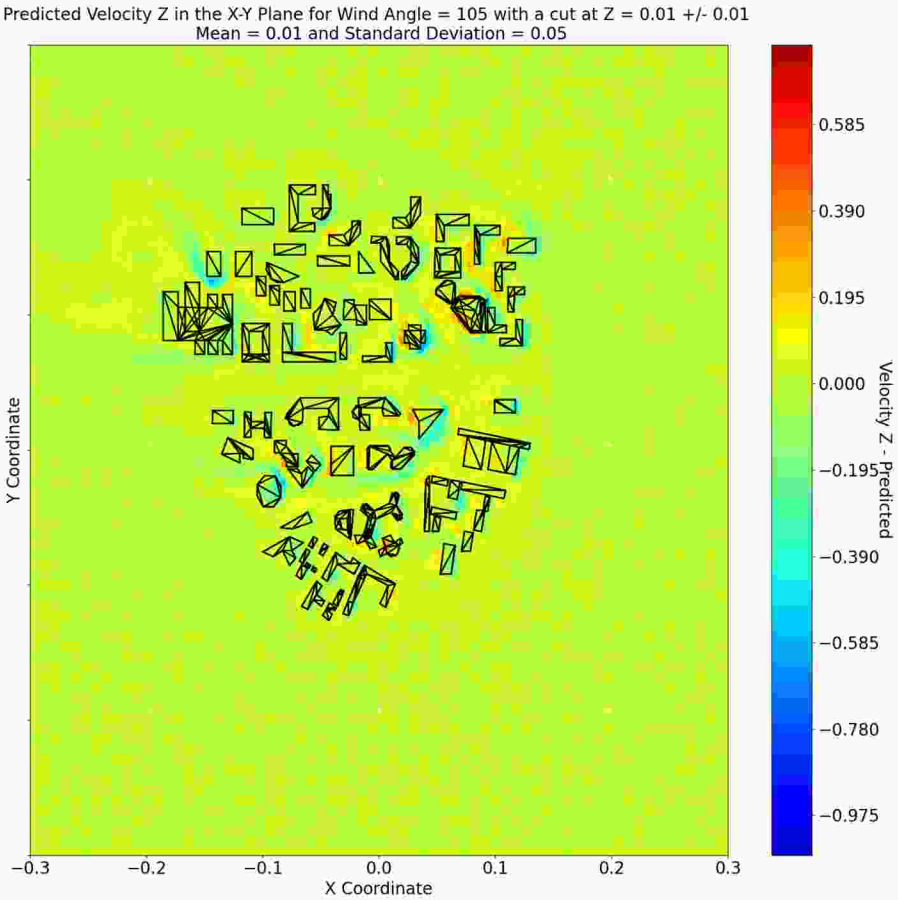
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



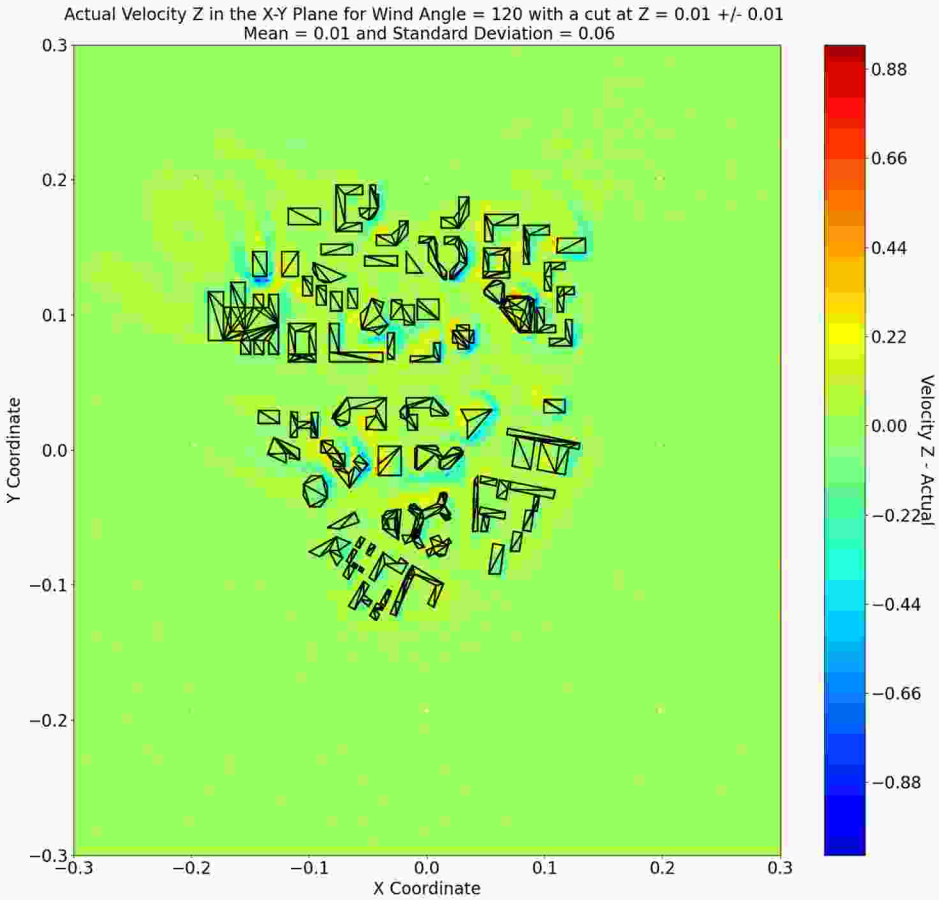


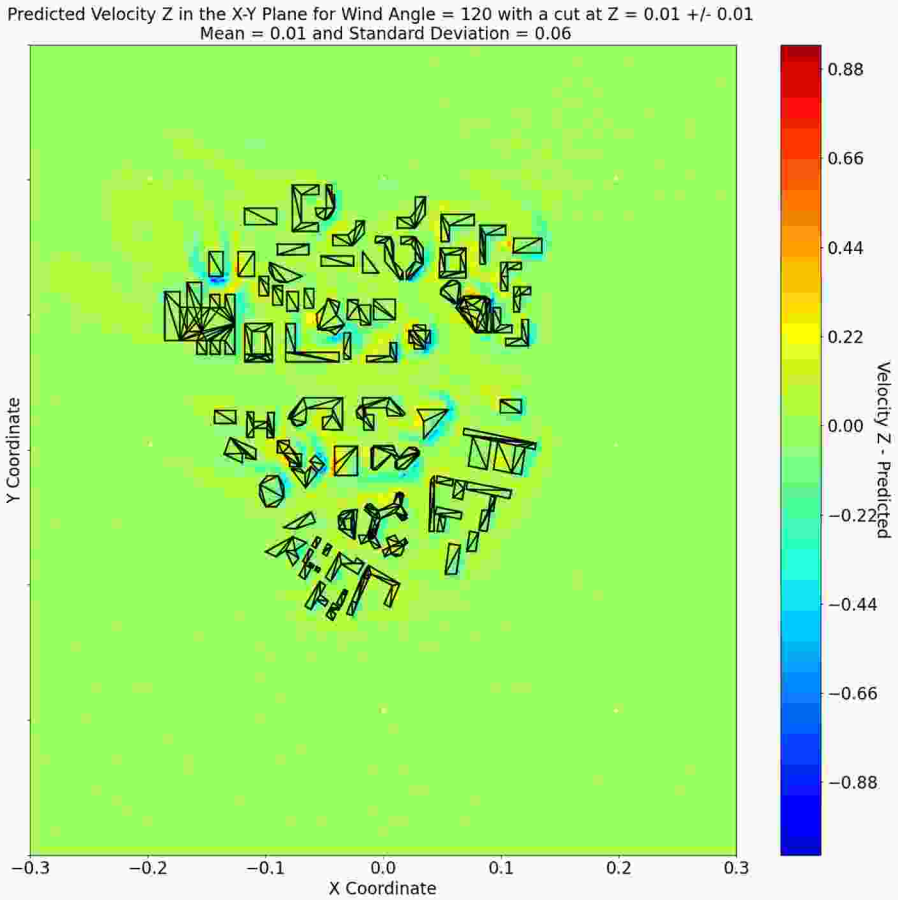
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



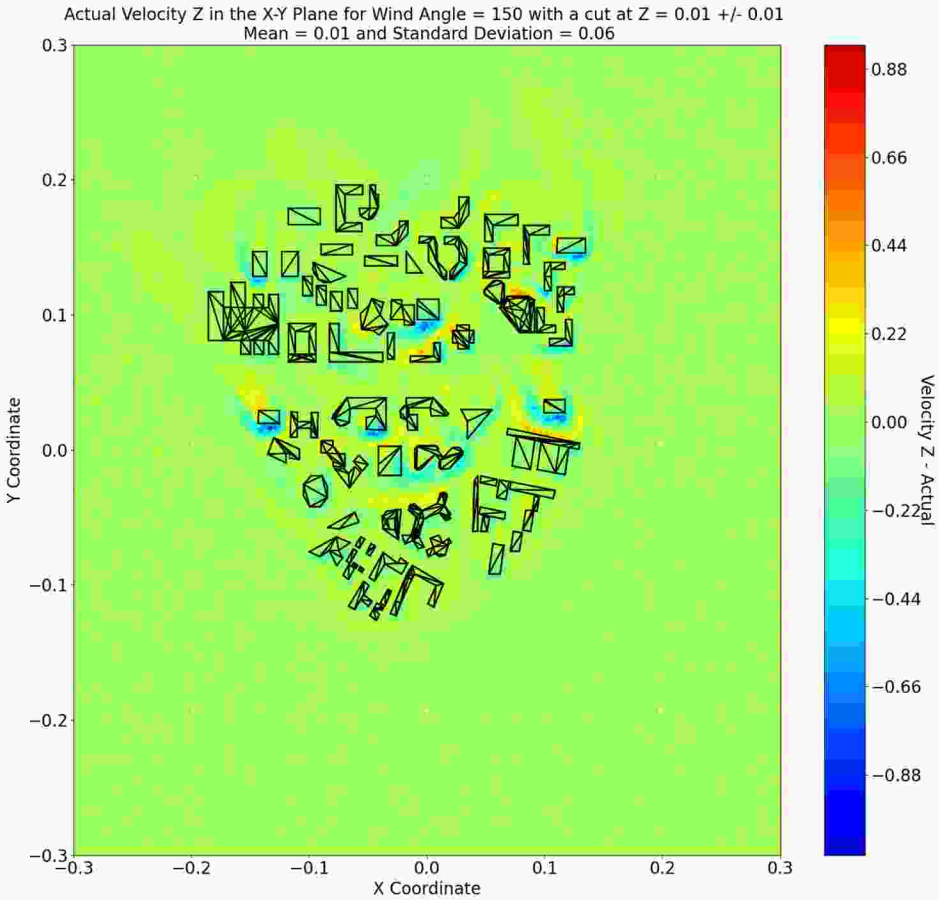


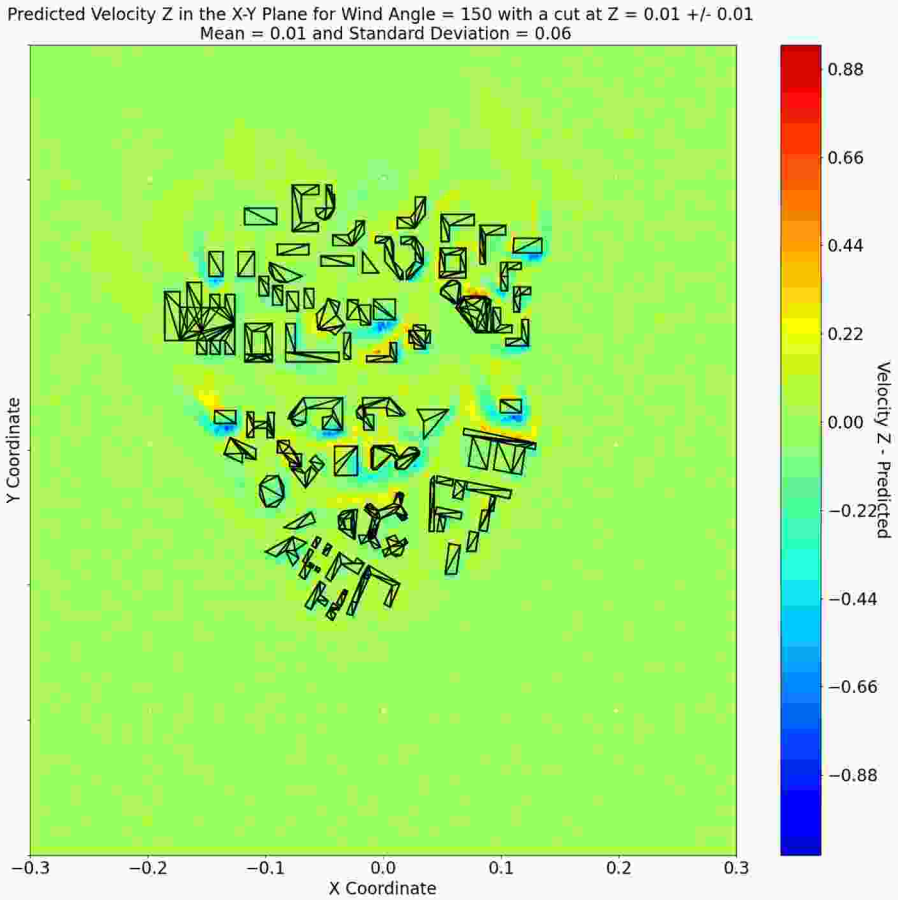
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



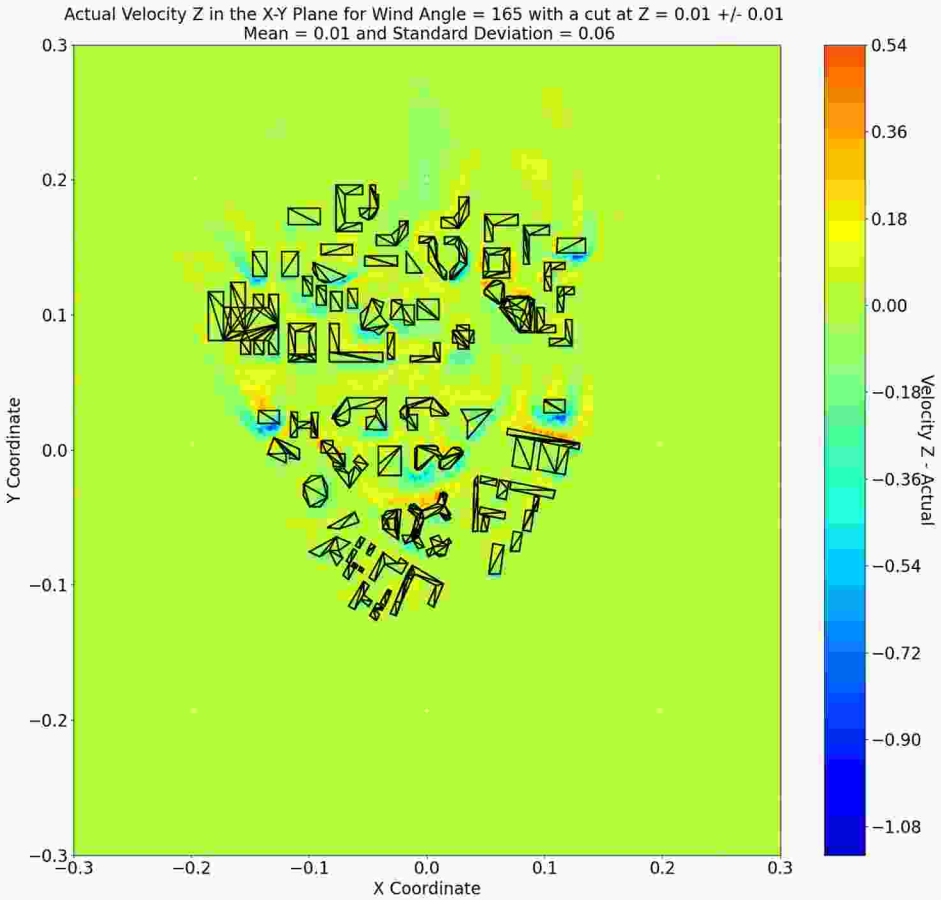


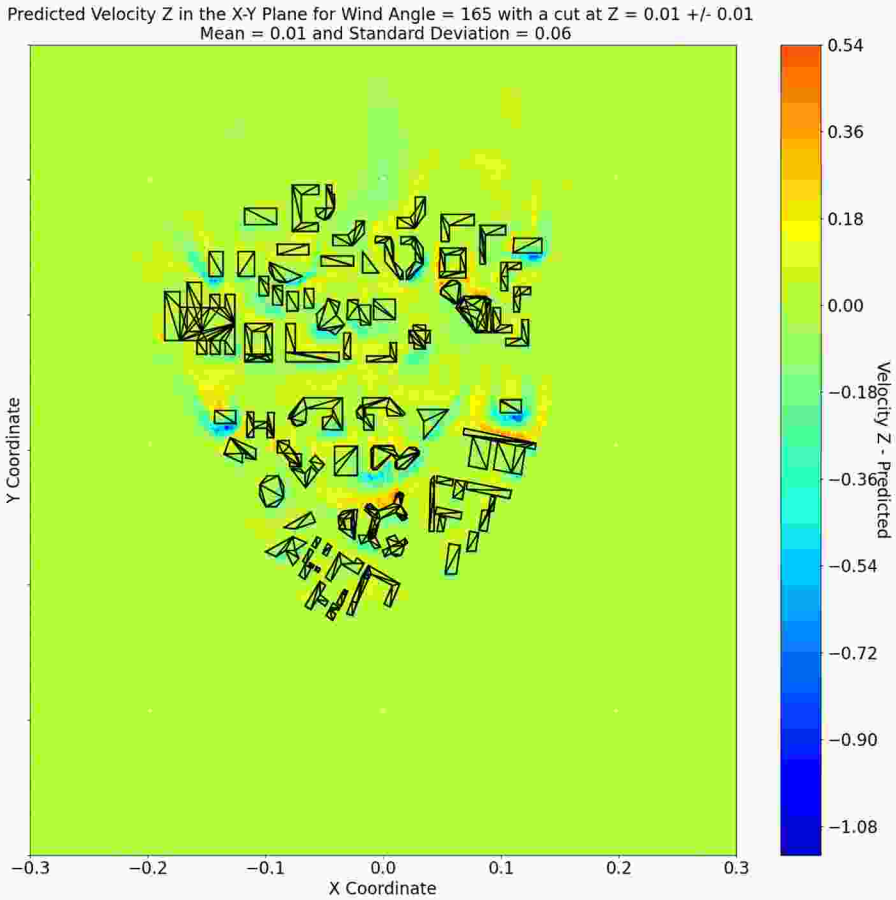
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

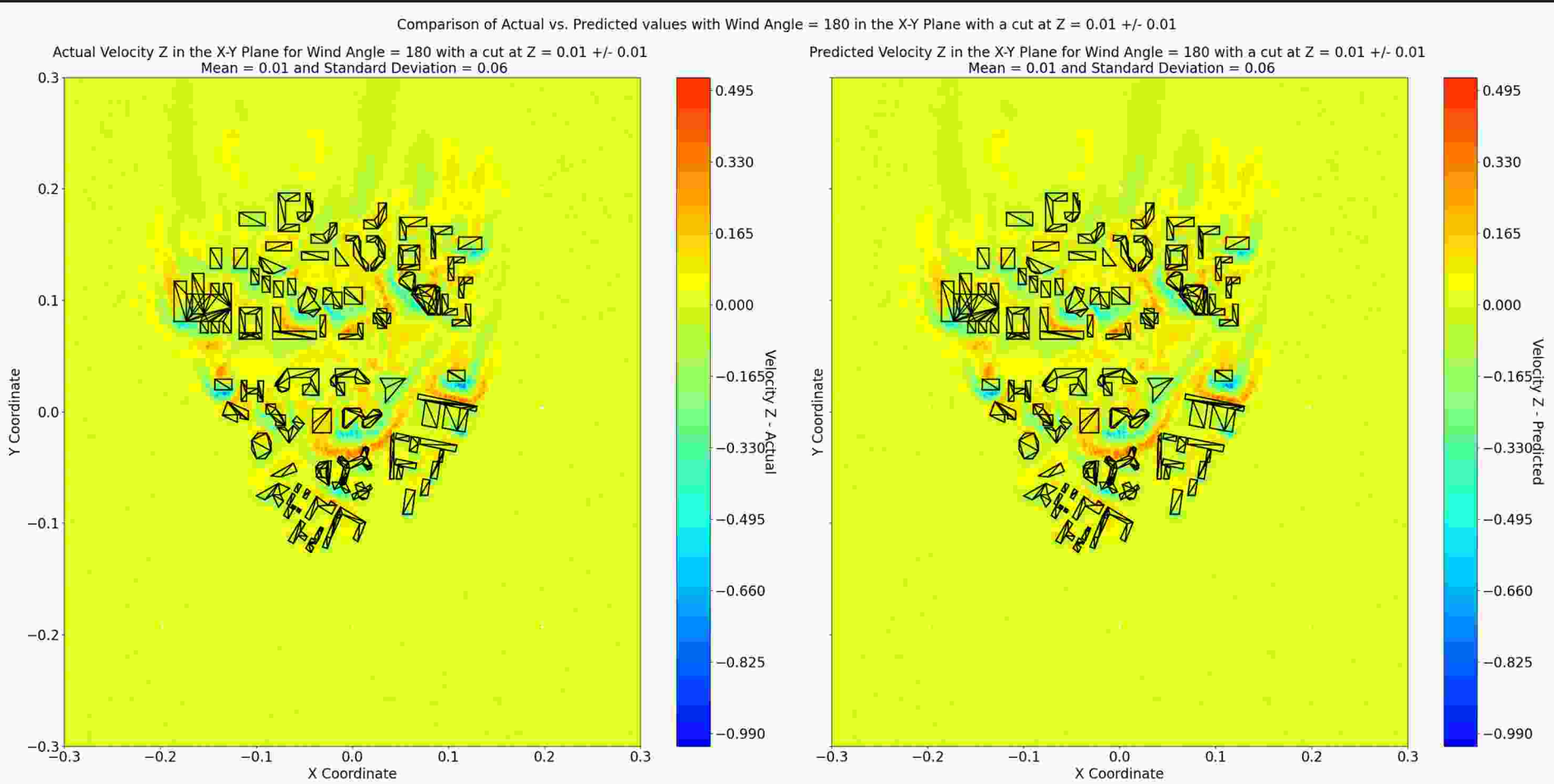




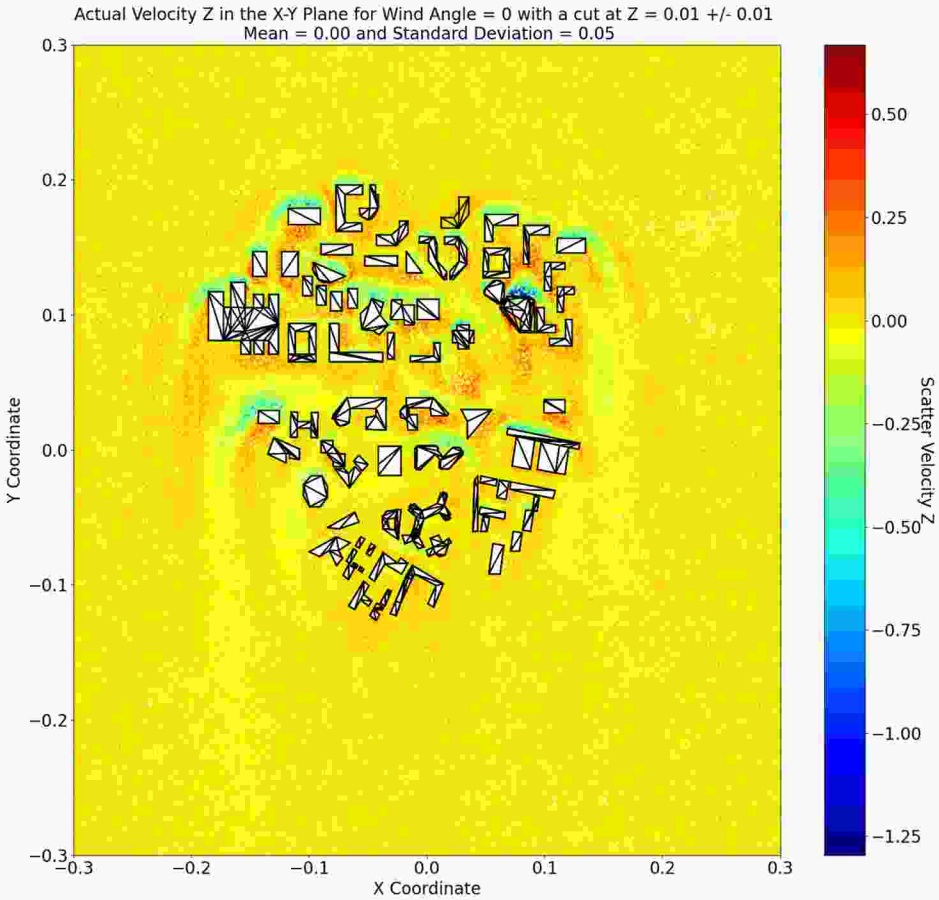
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

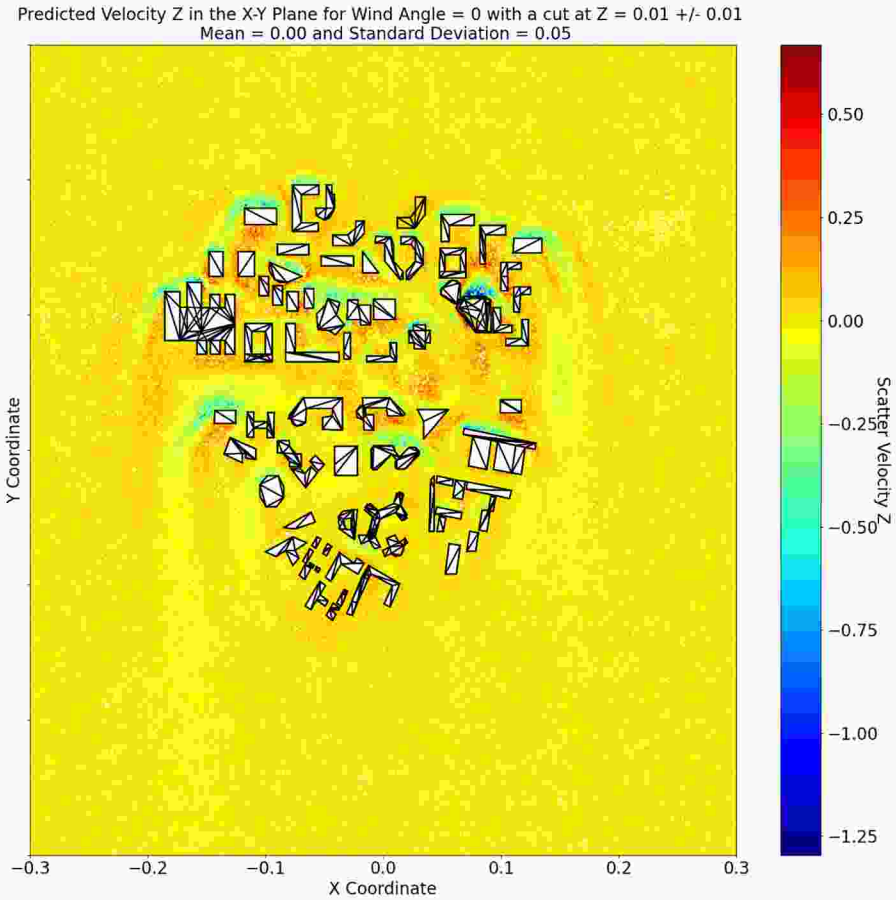




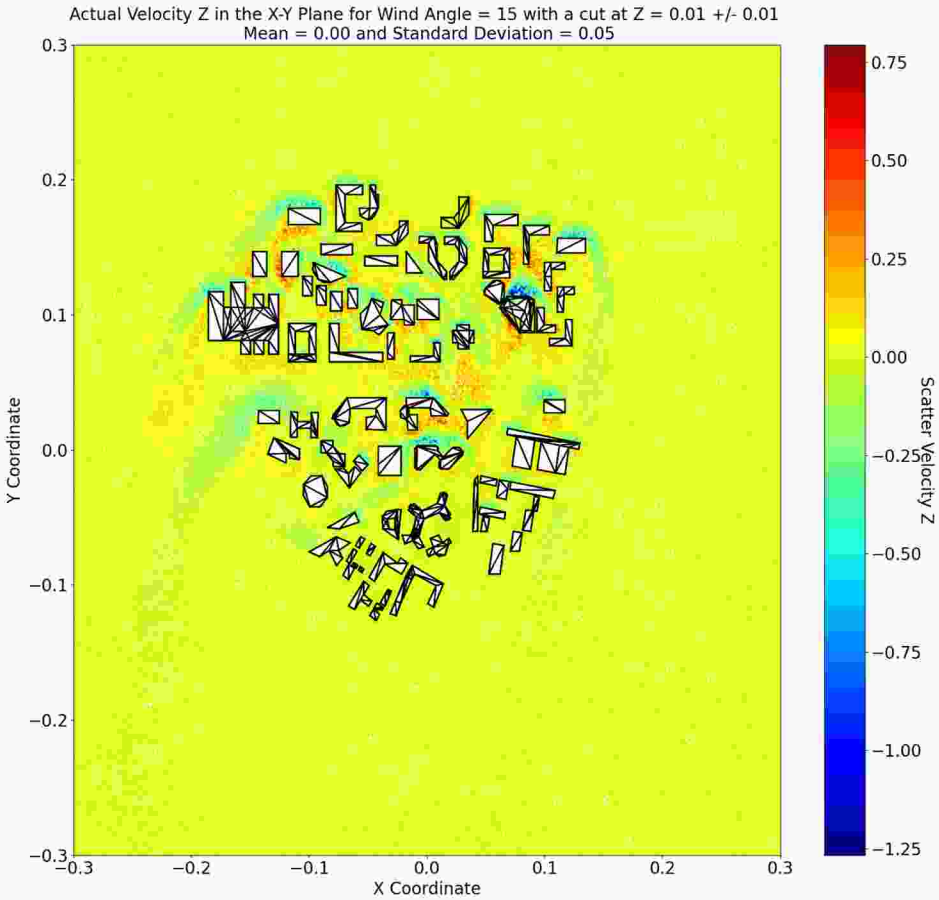

Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual Velocity Z in the X-Y Plane for Wind Angle = 180 with a cut at Z = 0.01 +/- 0.01
Mean = 0.01 and Standard Deviation = 0.06
Predicted Velocity Z in the X-Y Plane for Wind Angle = 180 with a cut at Z = 0.01 +/- 0.01
Mean = 0.01 and Standard Deviation = 0.06
Y Coordinate
X Coordinate
Velocity Z - Actual
Velocity Z - Predicted
0.495
0.330
0.165
0.000
−0.165
−0.330
−0.495
−0.660
−0.825
−0.990
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3

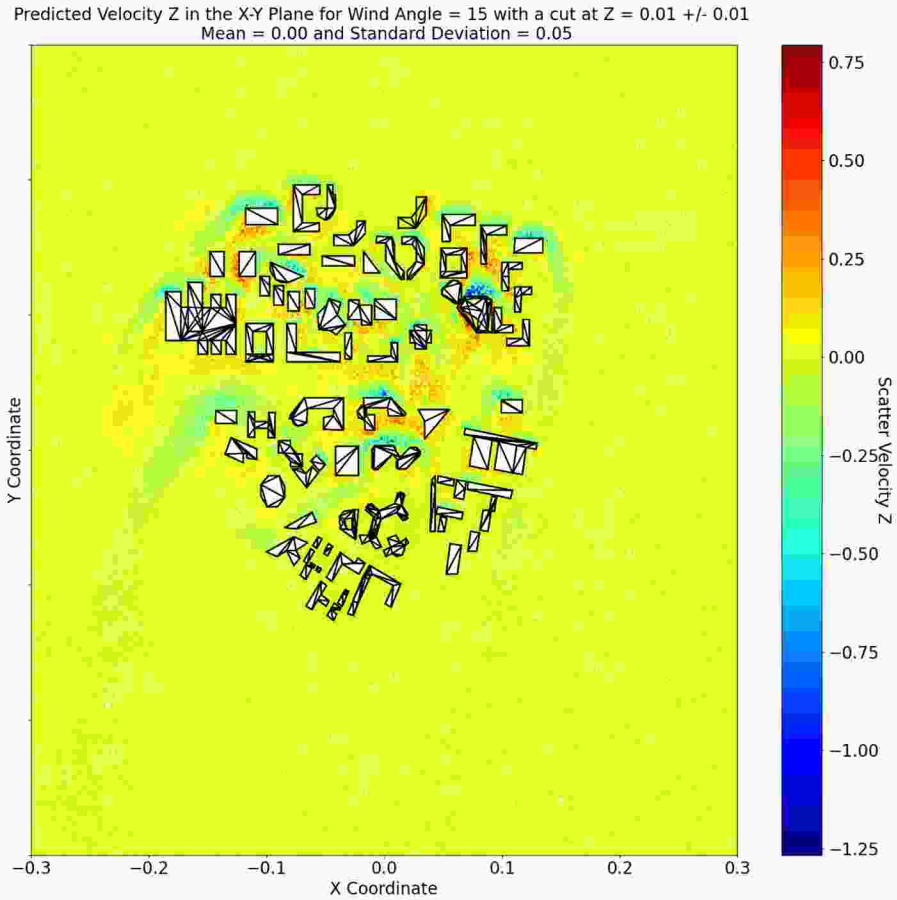
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



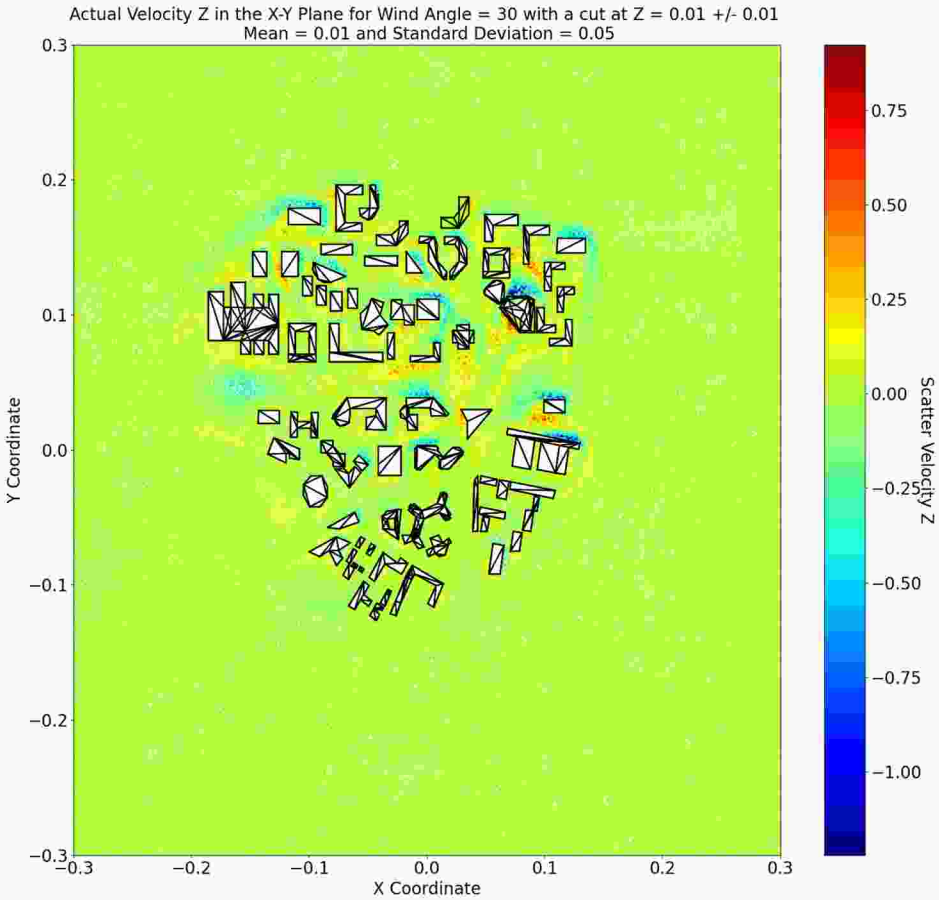


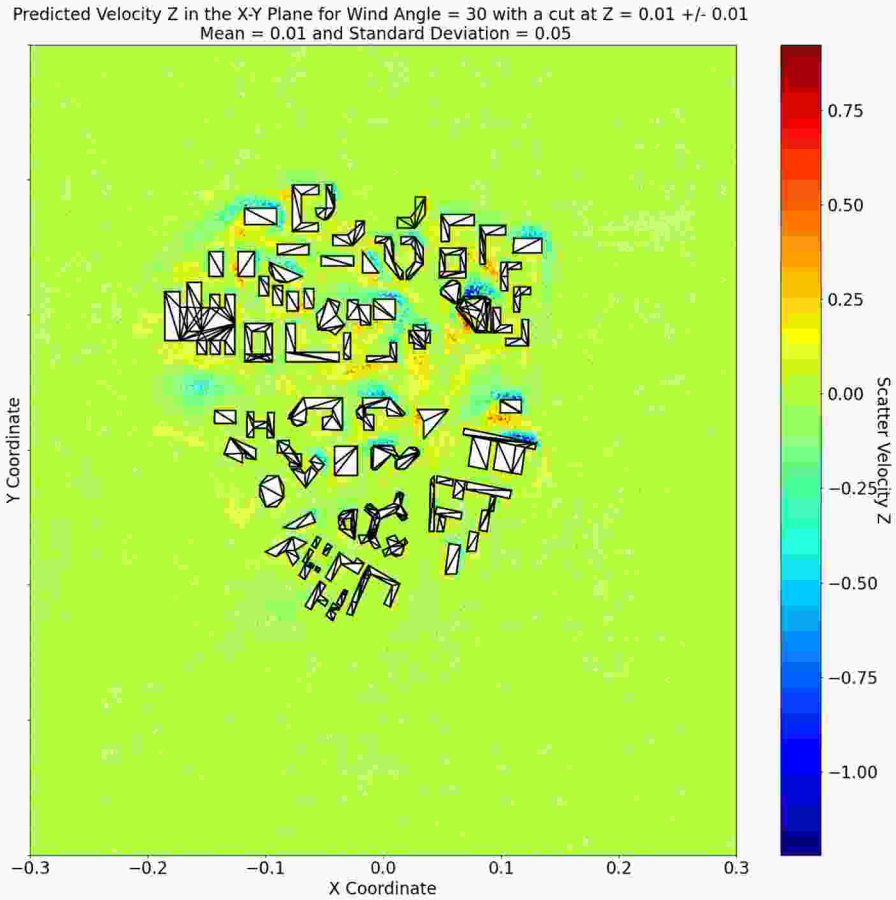
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



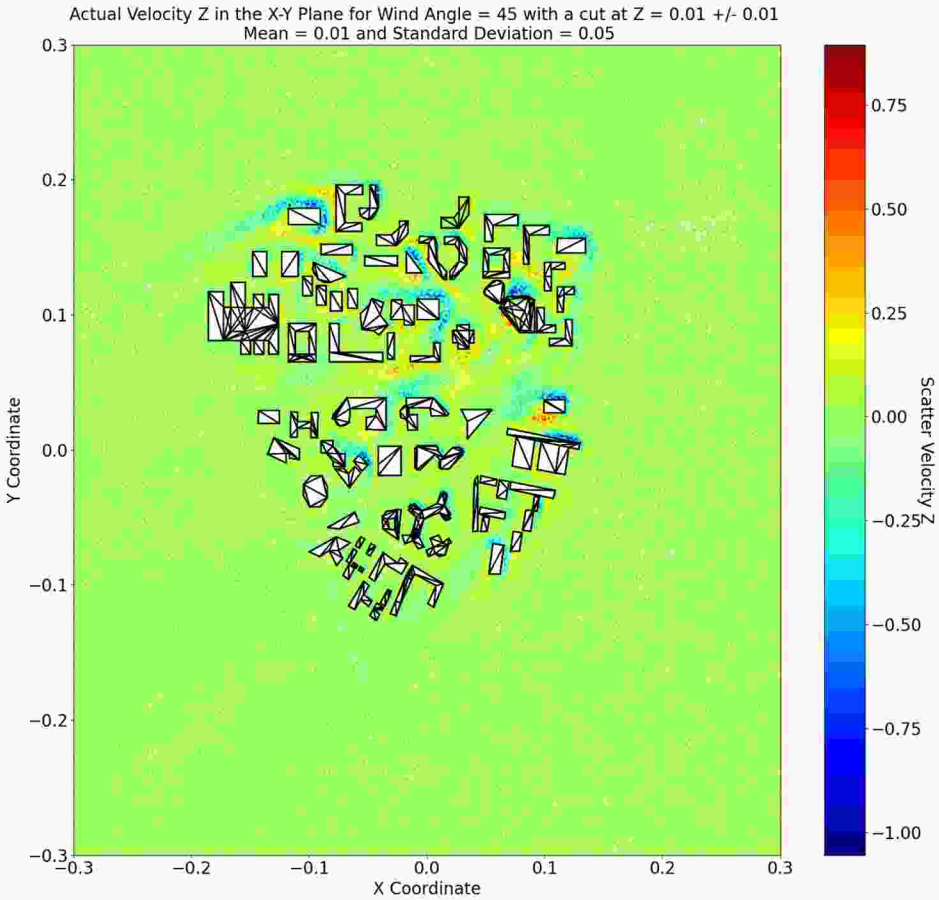


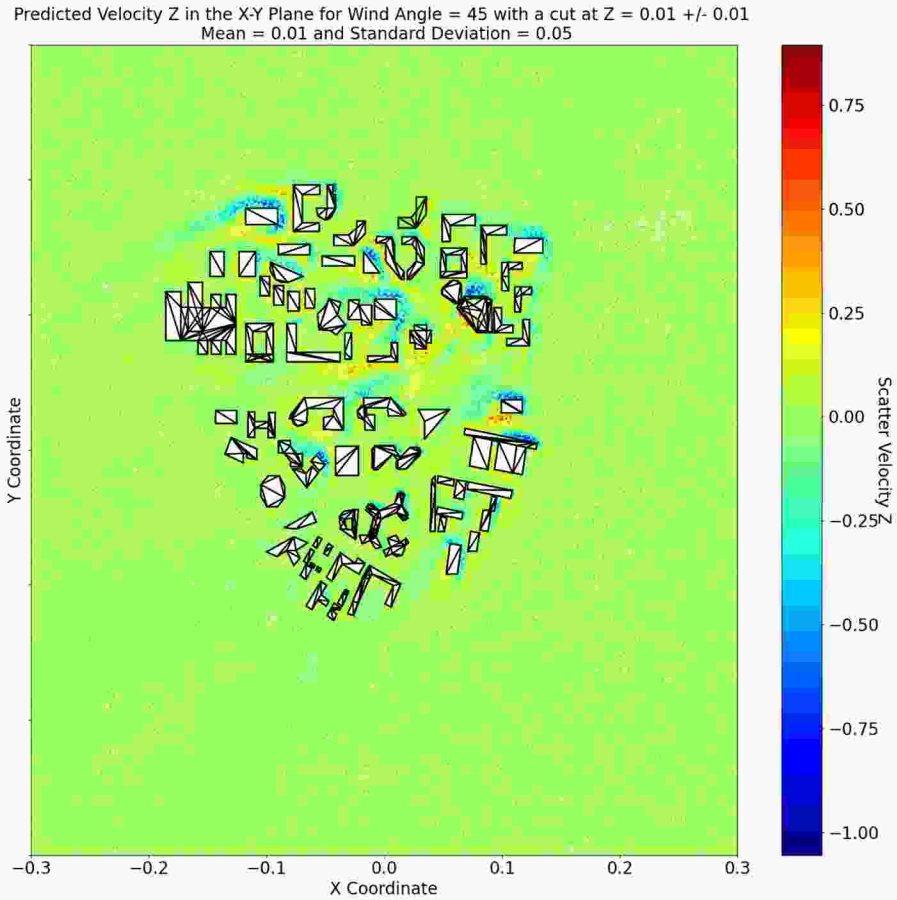
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



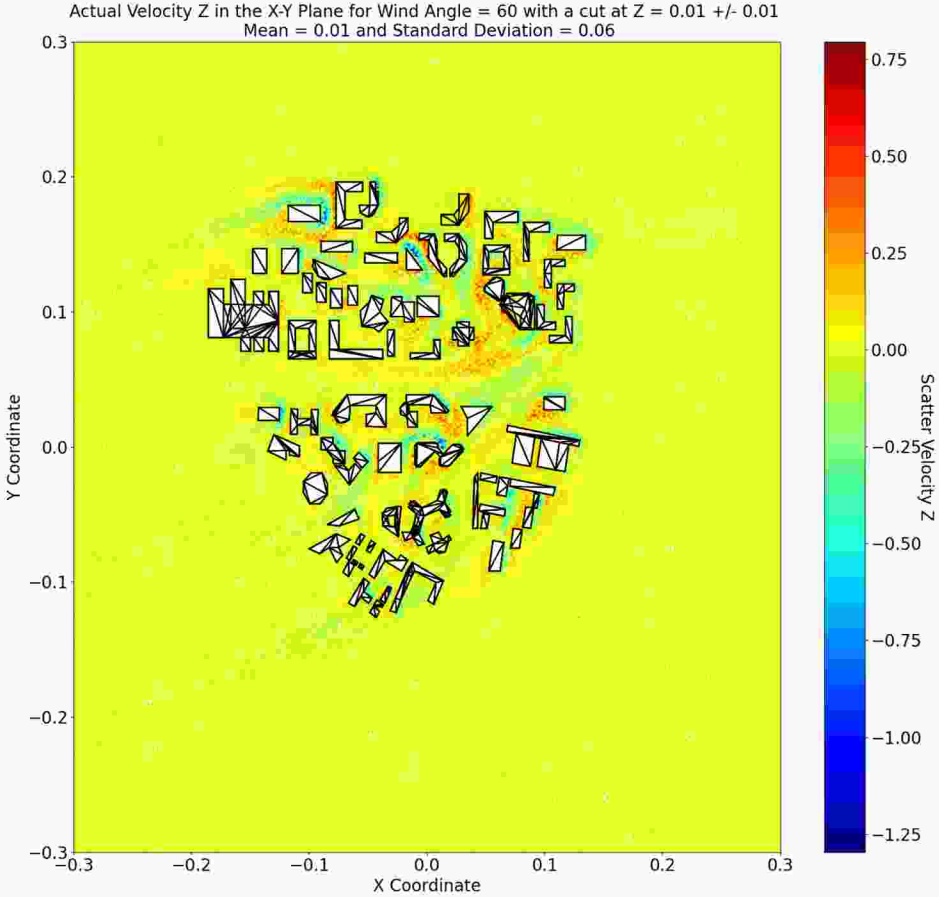


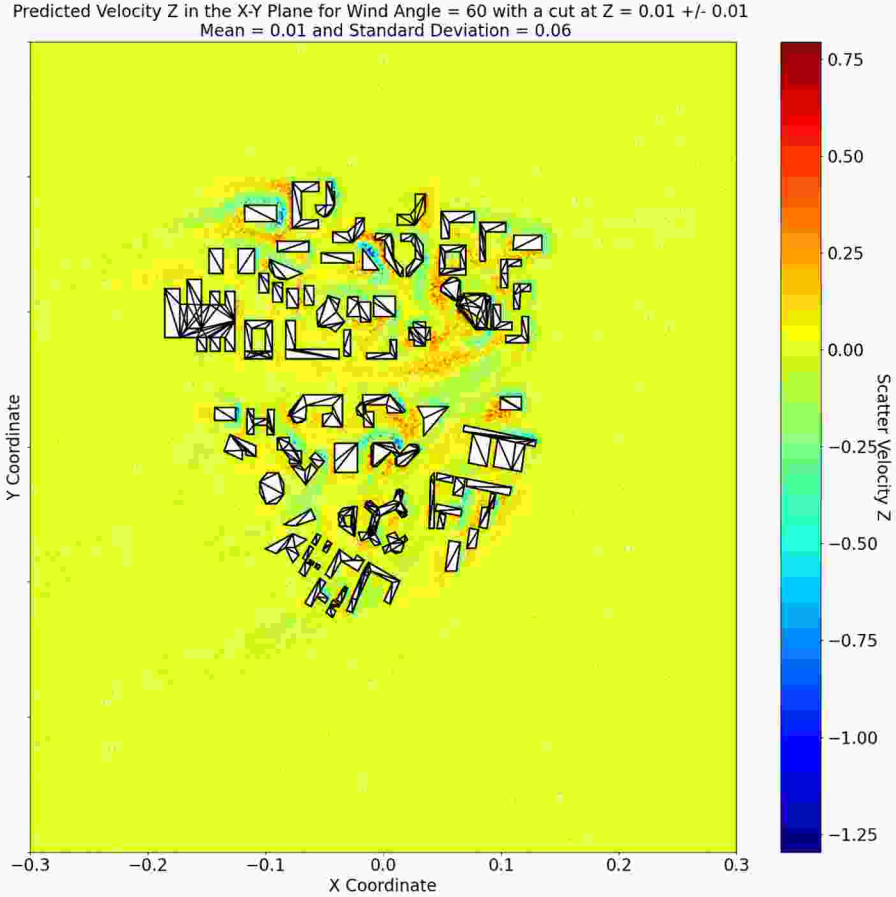
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

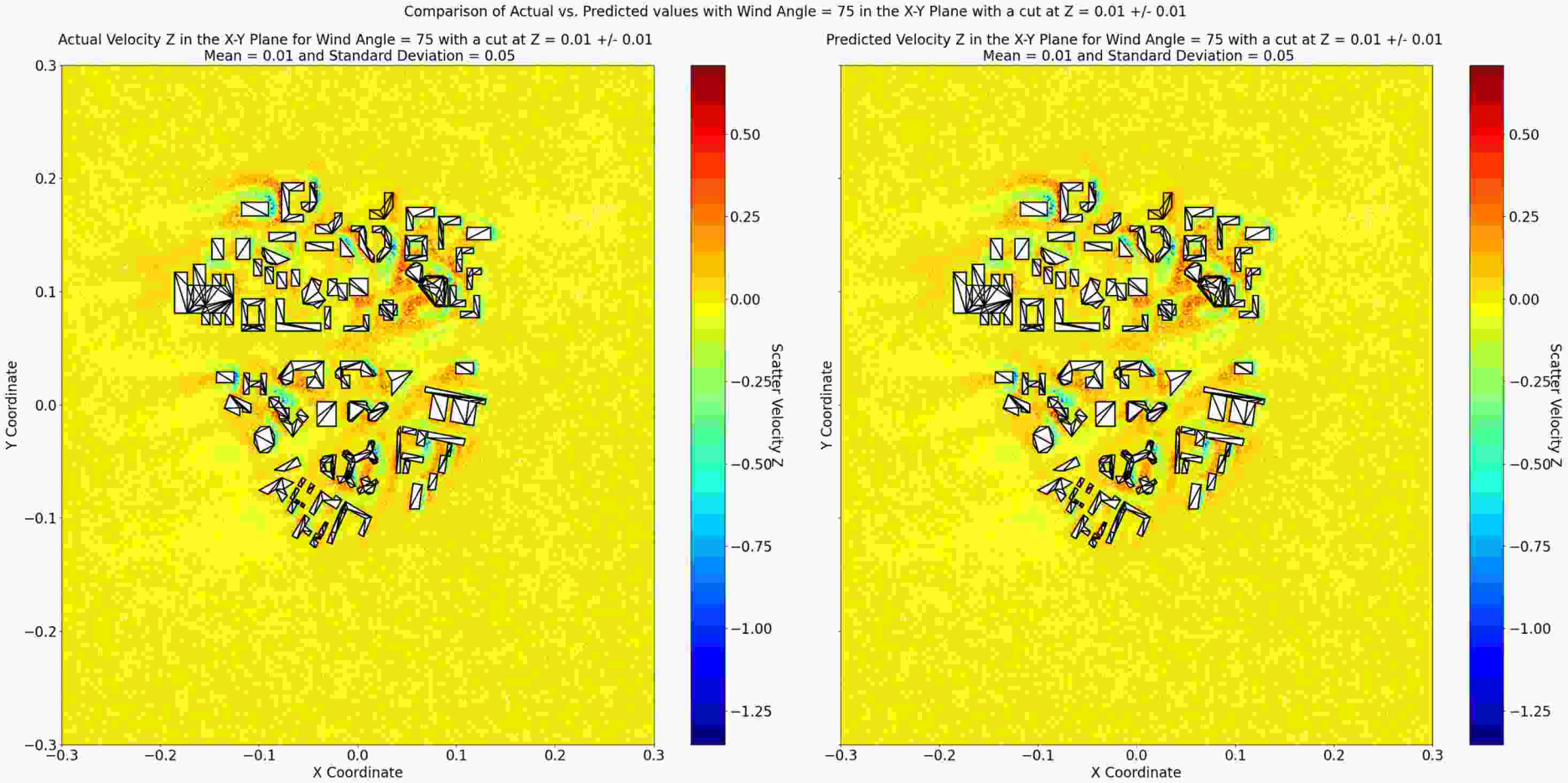




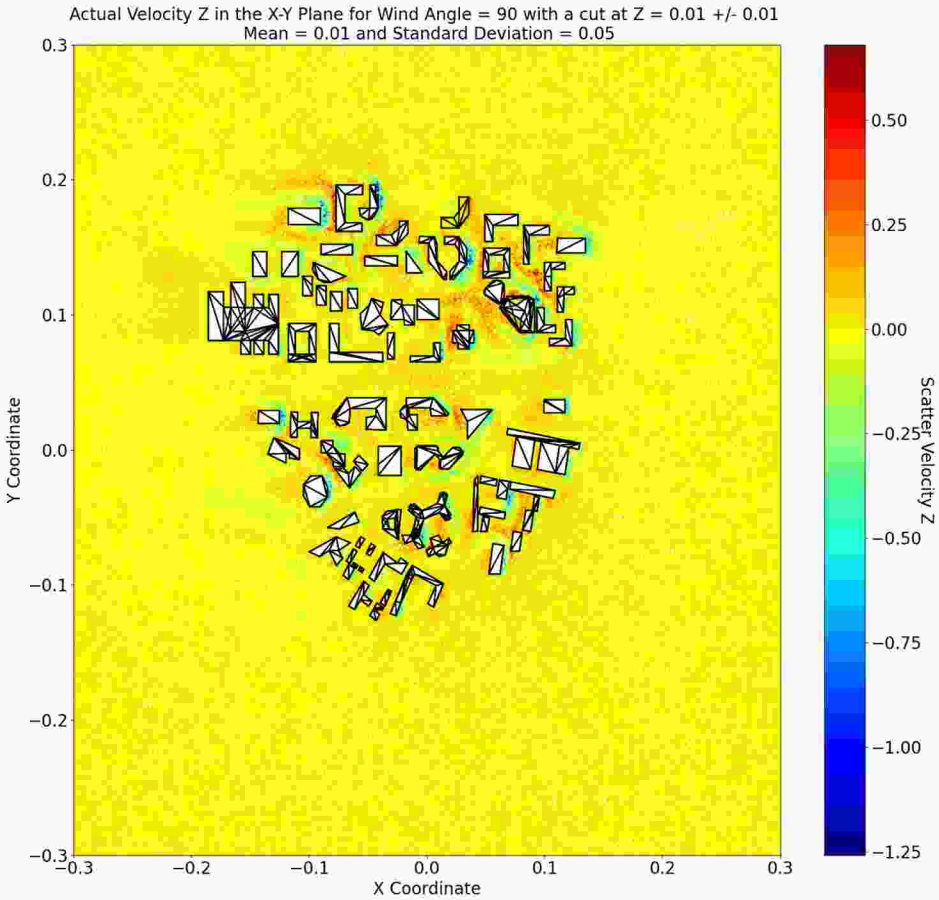
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

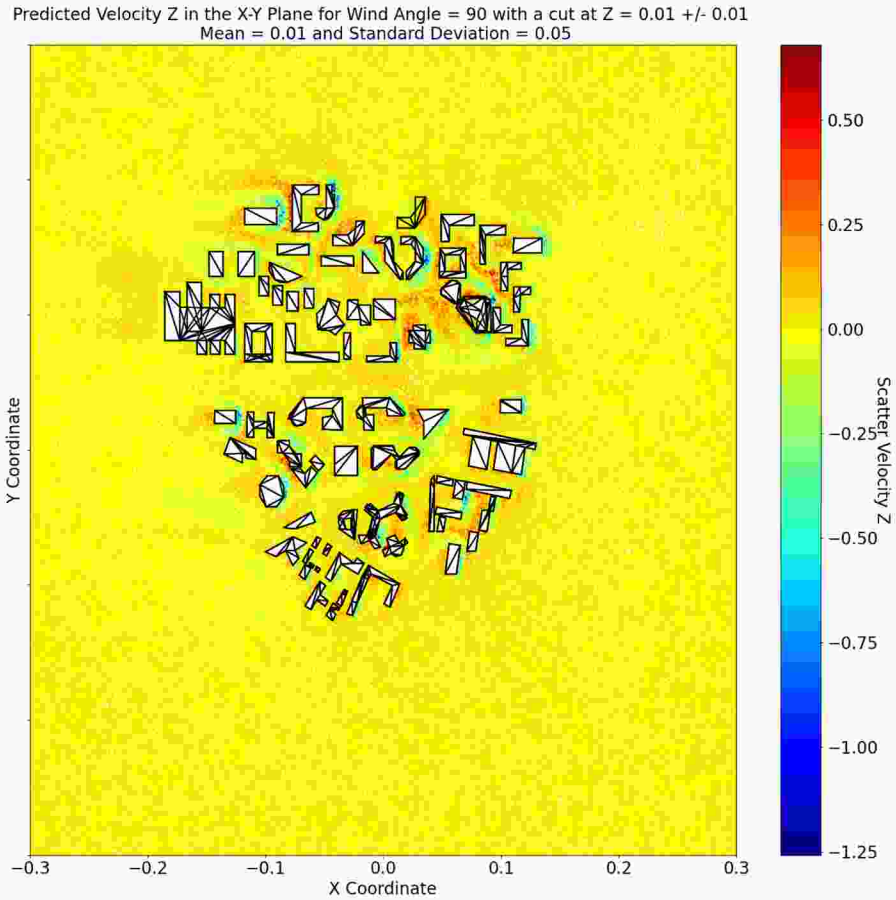




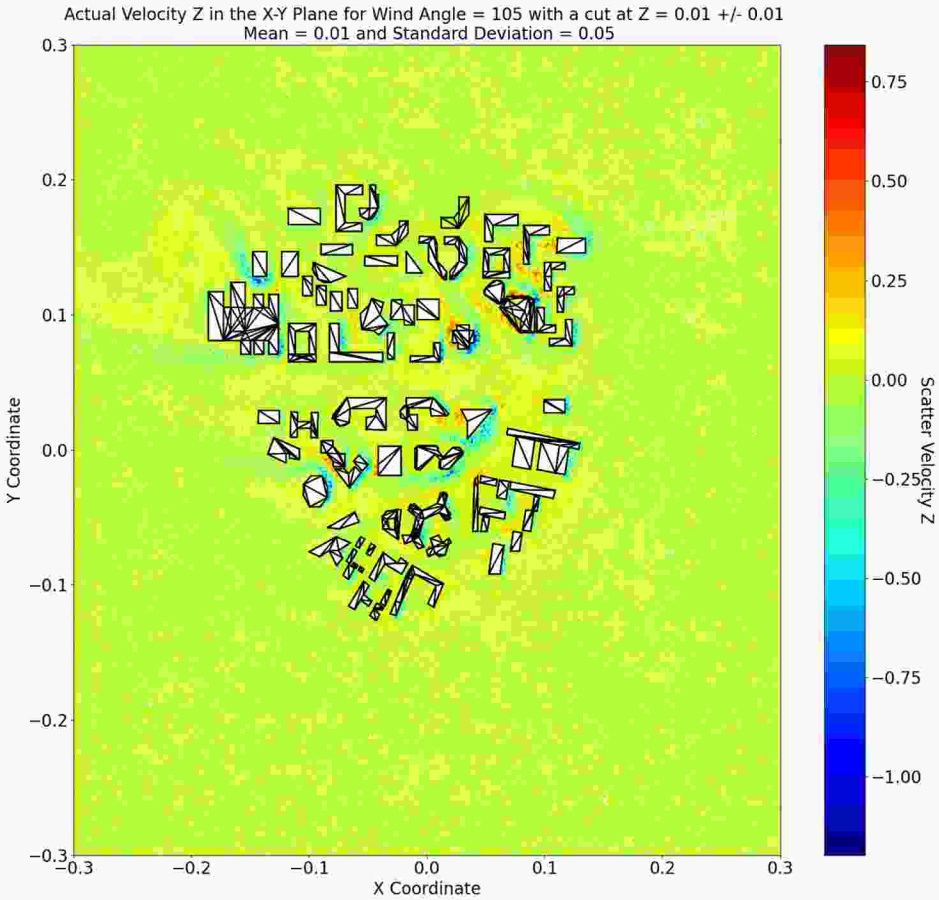

Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01
Actual Velocity Z in the X-Y Plane for Wind Angle = 75 with a cut at Z = 0.01 +/- 0.01
Mean = 0.01 and Standard Deviation = 0.05
Predicted Velocity Z in the X-Y Plane for Wind Angle = 75 with a cut at Z = 0.01 +/- 0.01
Mean = 0.01 and Standard Deviation = 0.05
Y Coordinate
X Coordinate
Scatter Velocity Z
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
−1.25

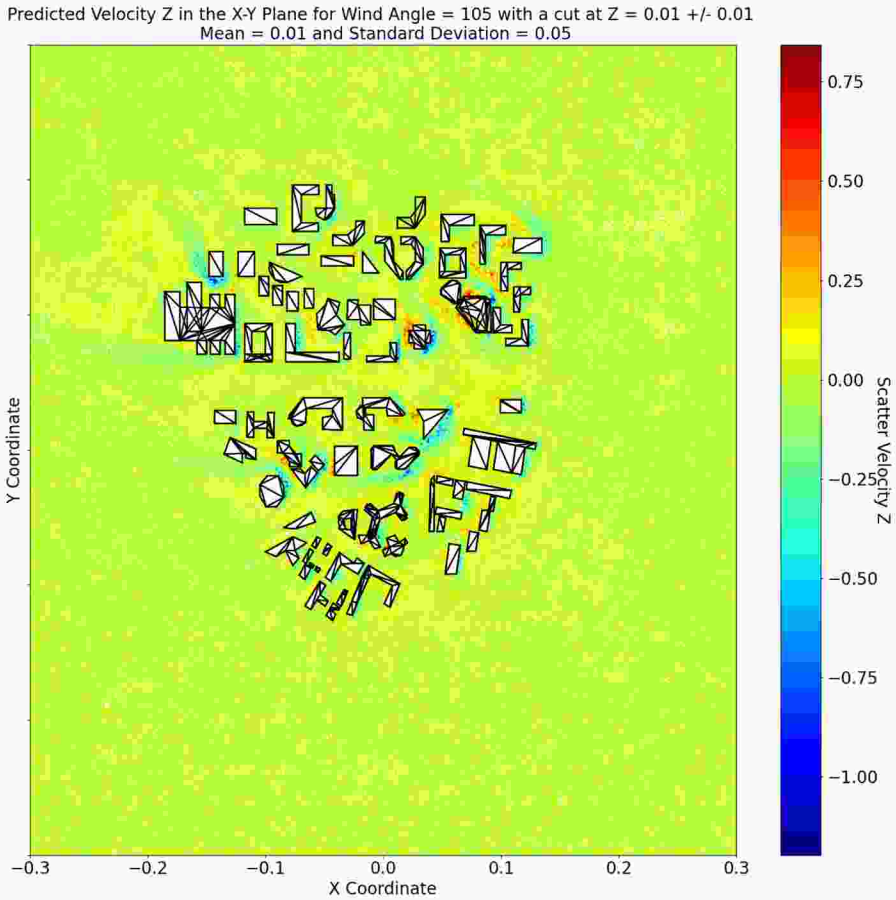
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



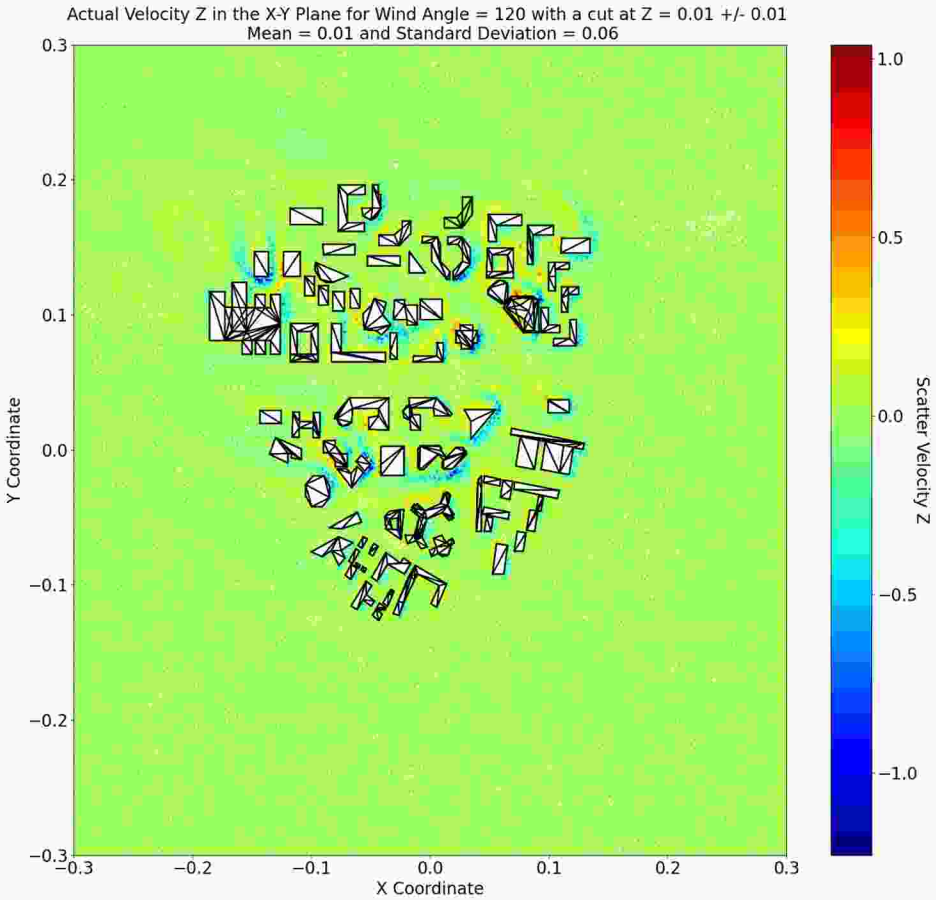


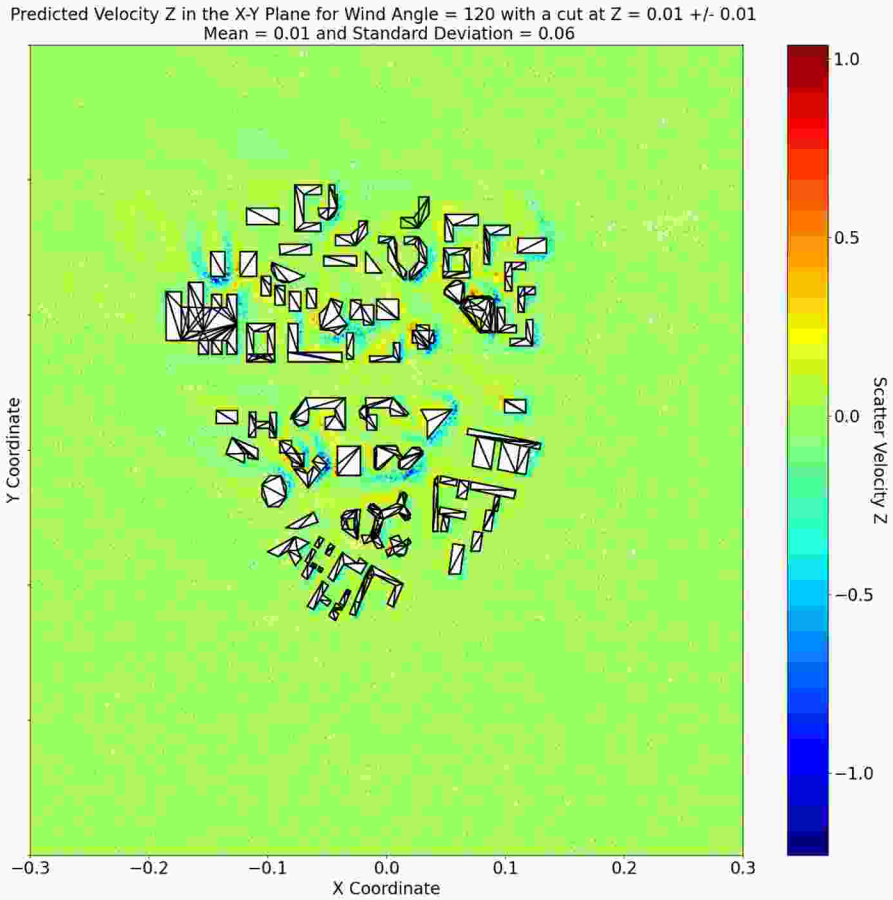
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



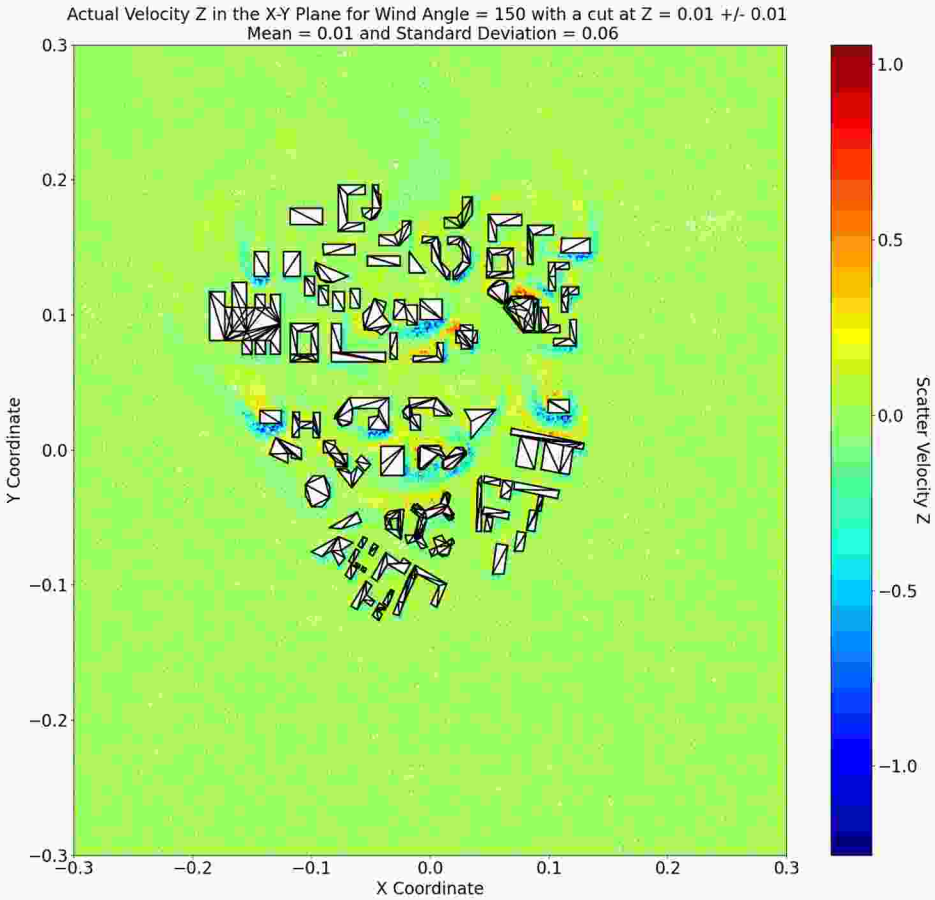


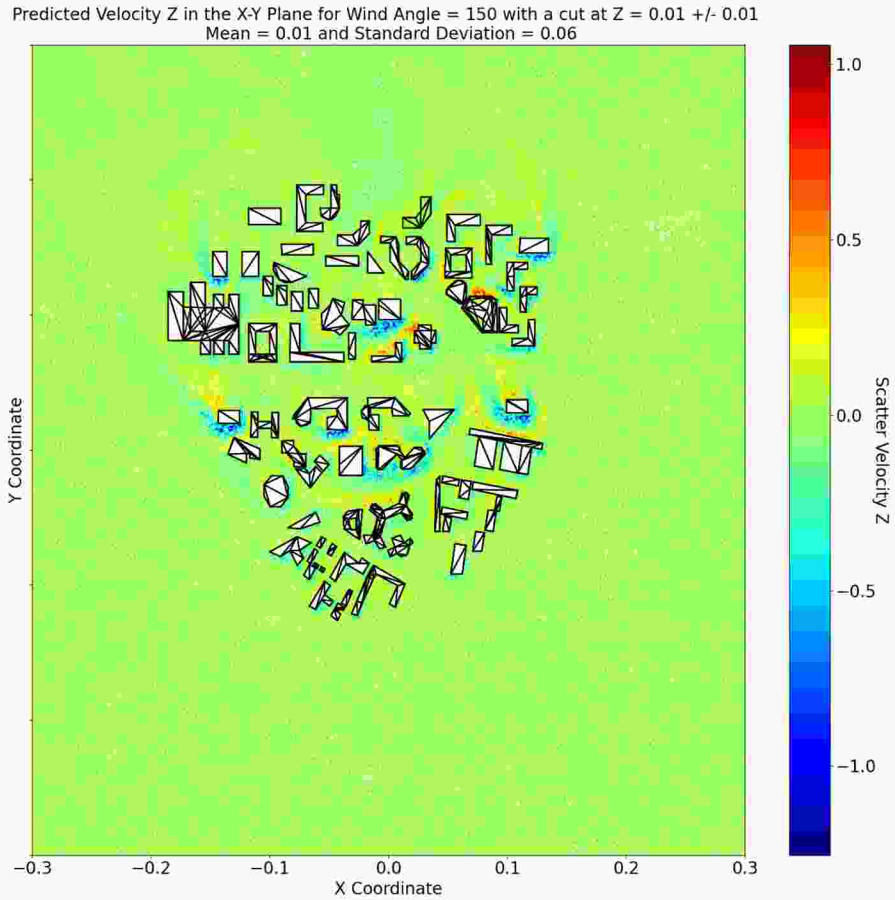
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



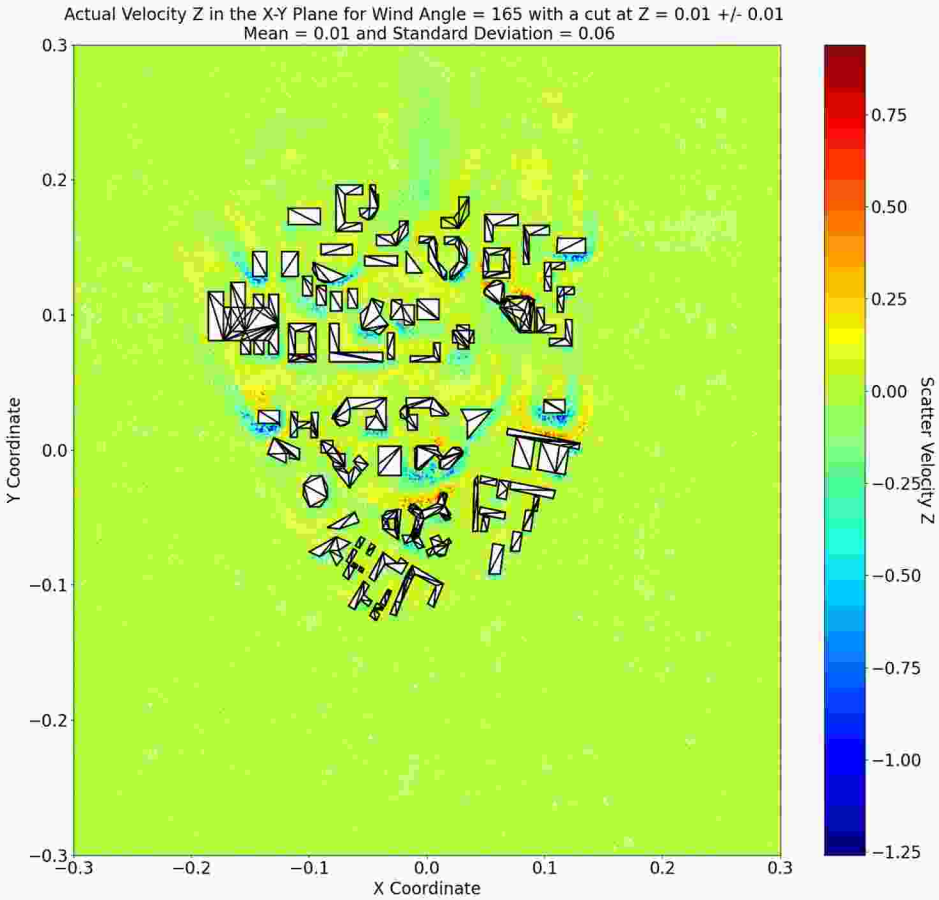


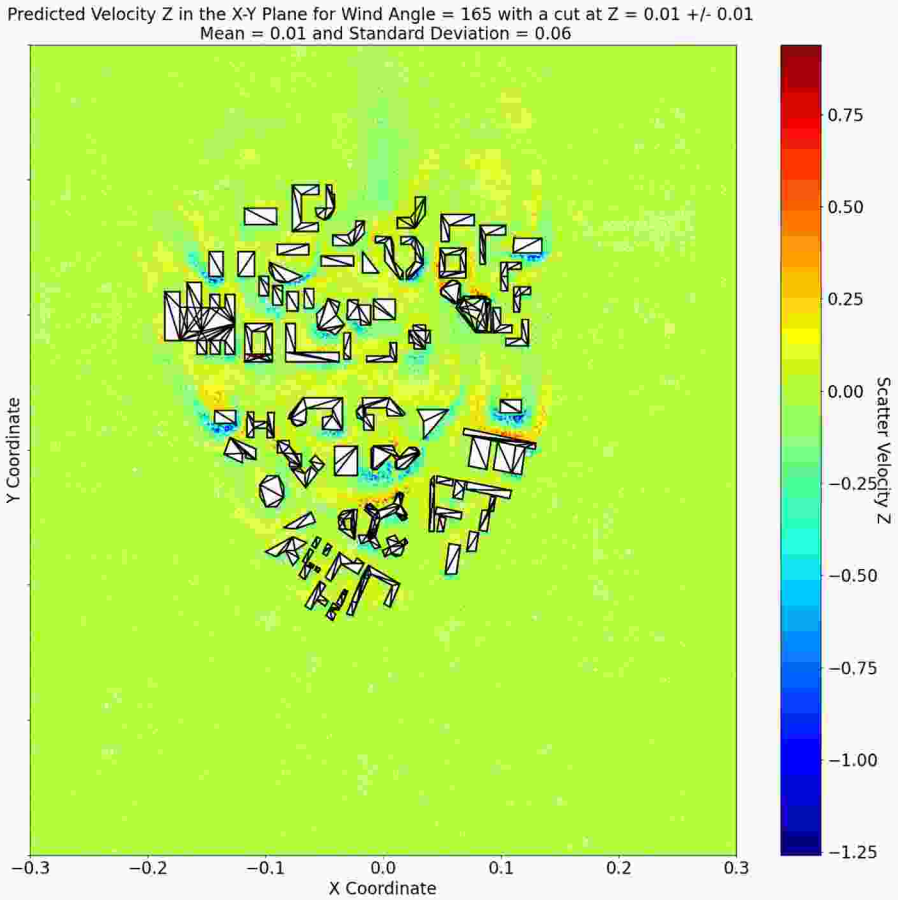
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



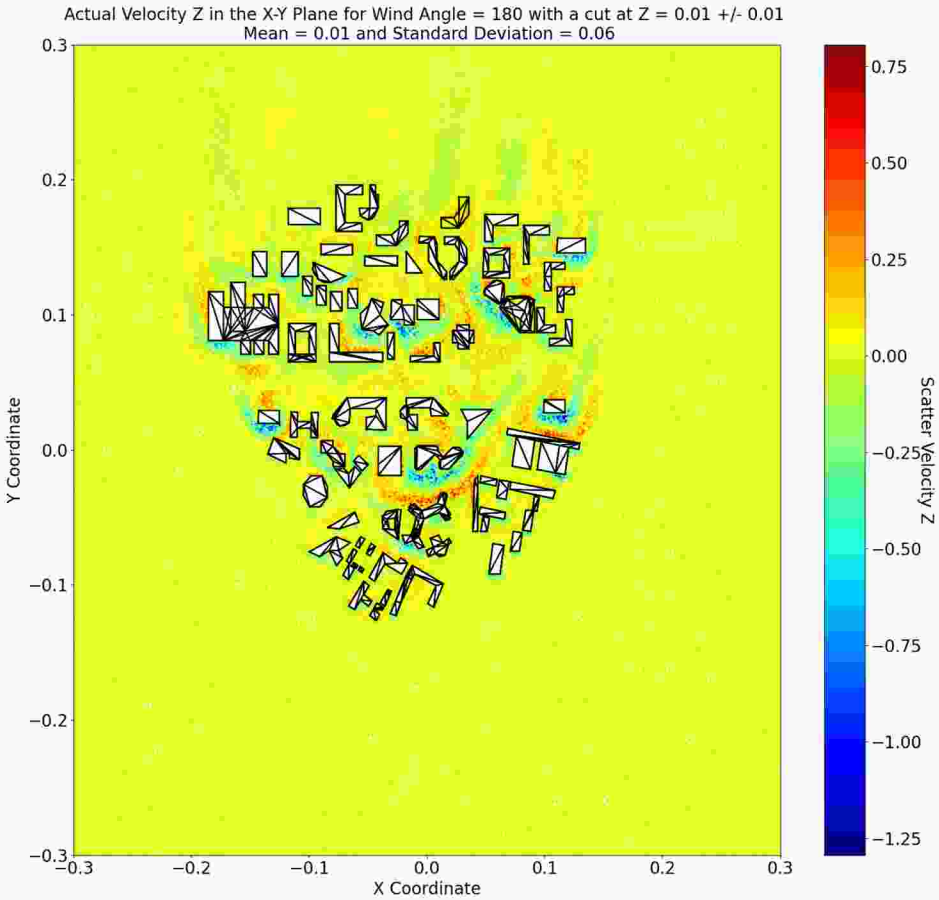


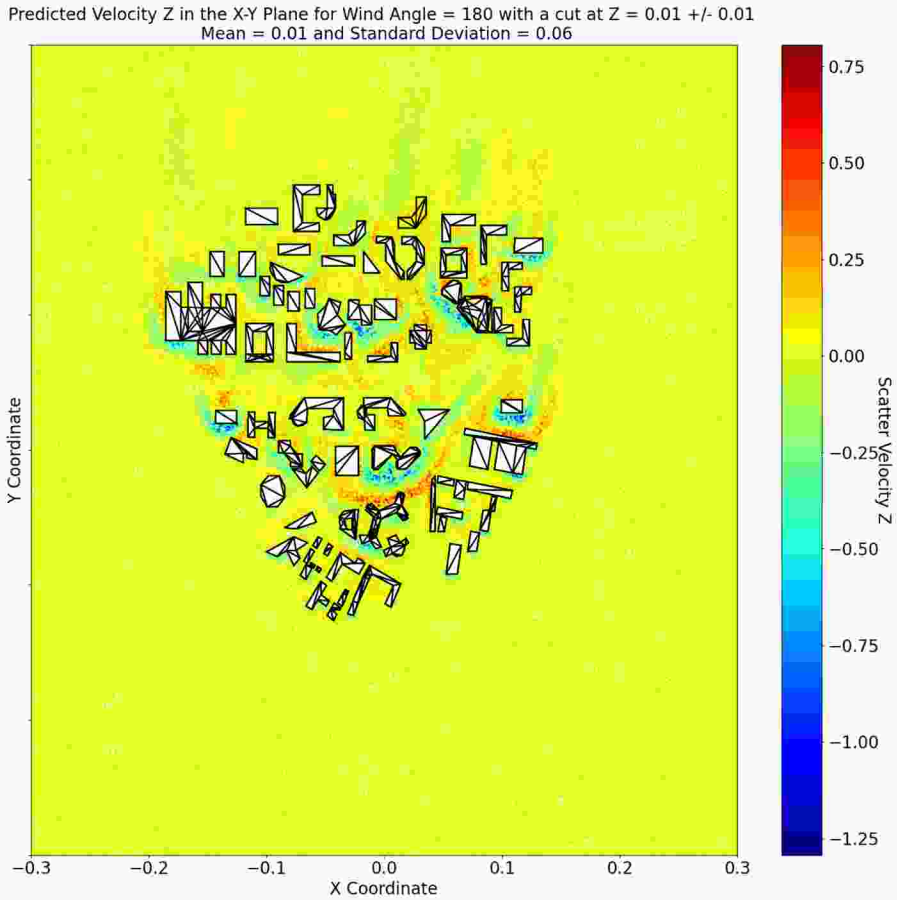
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

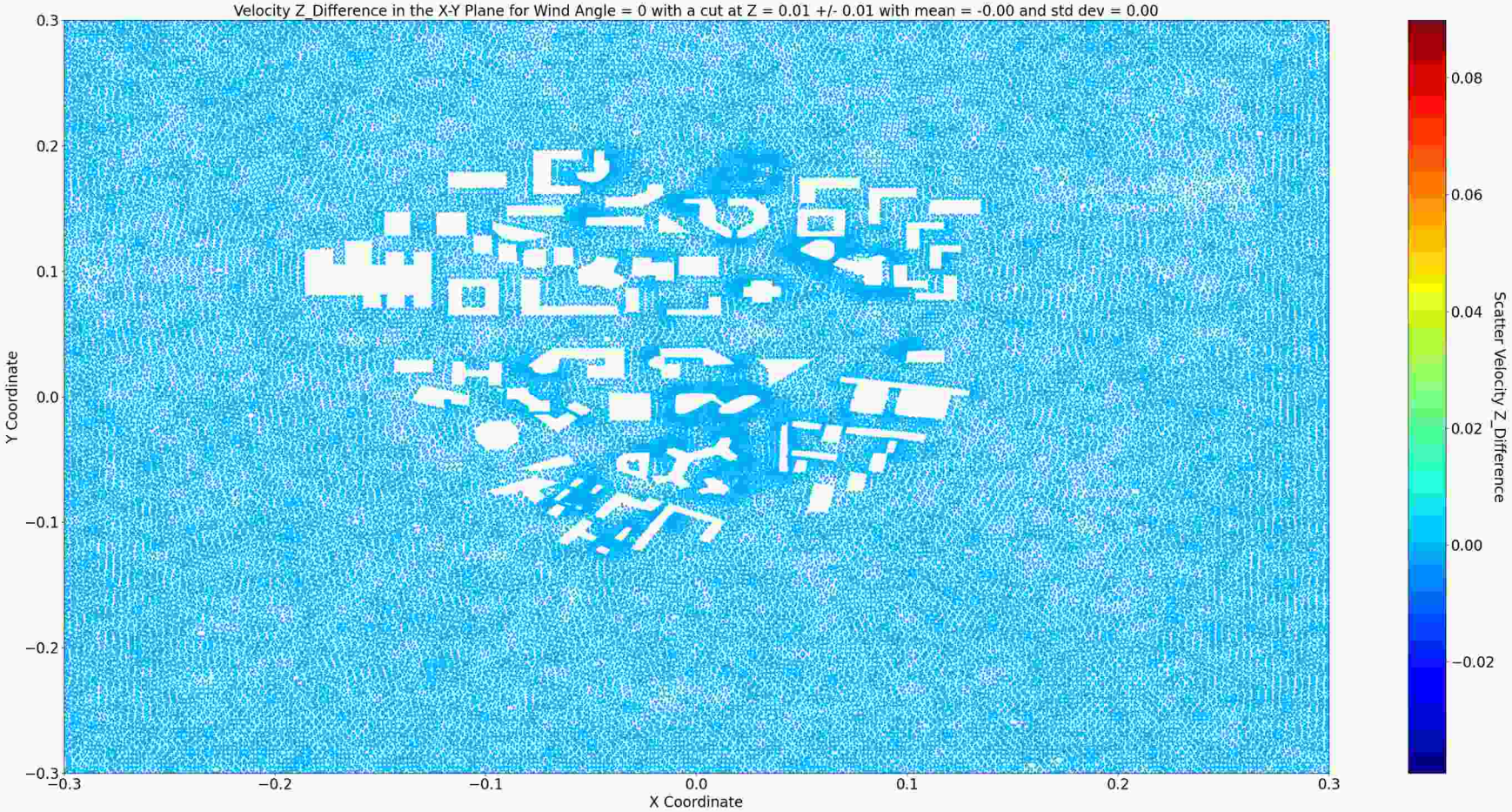


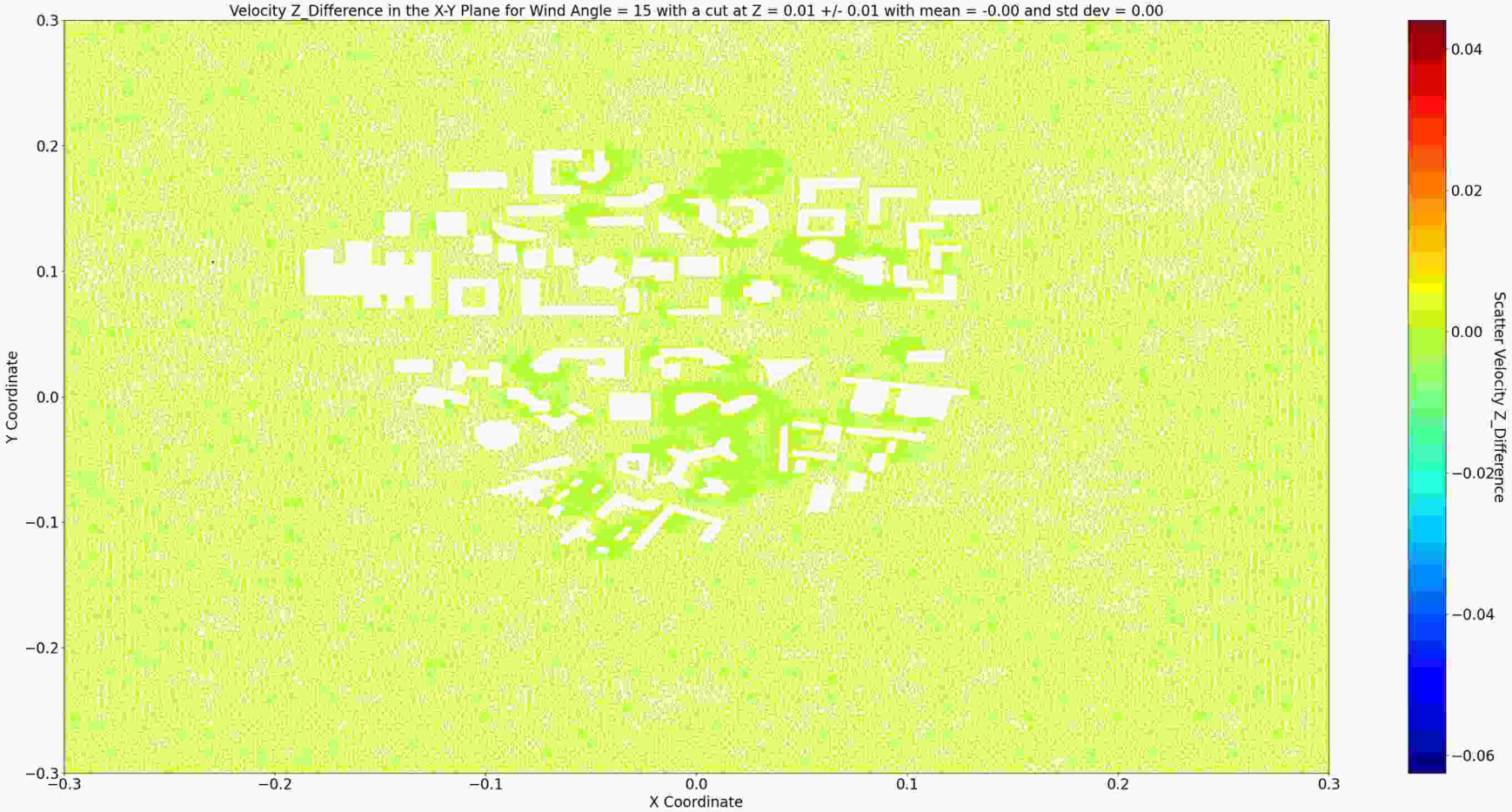


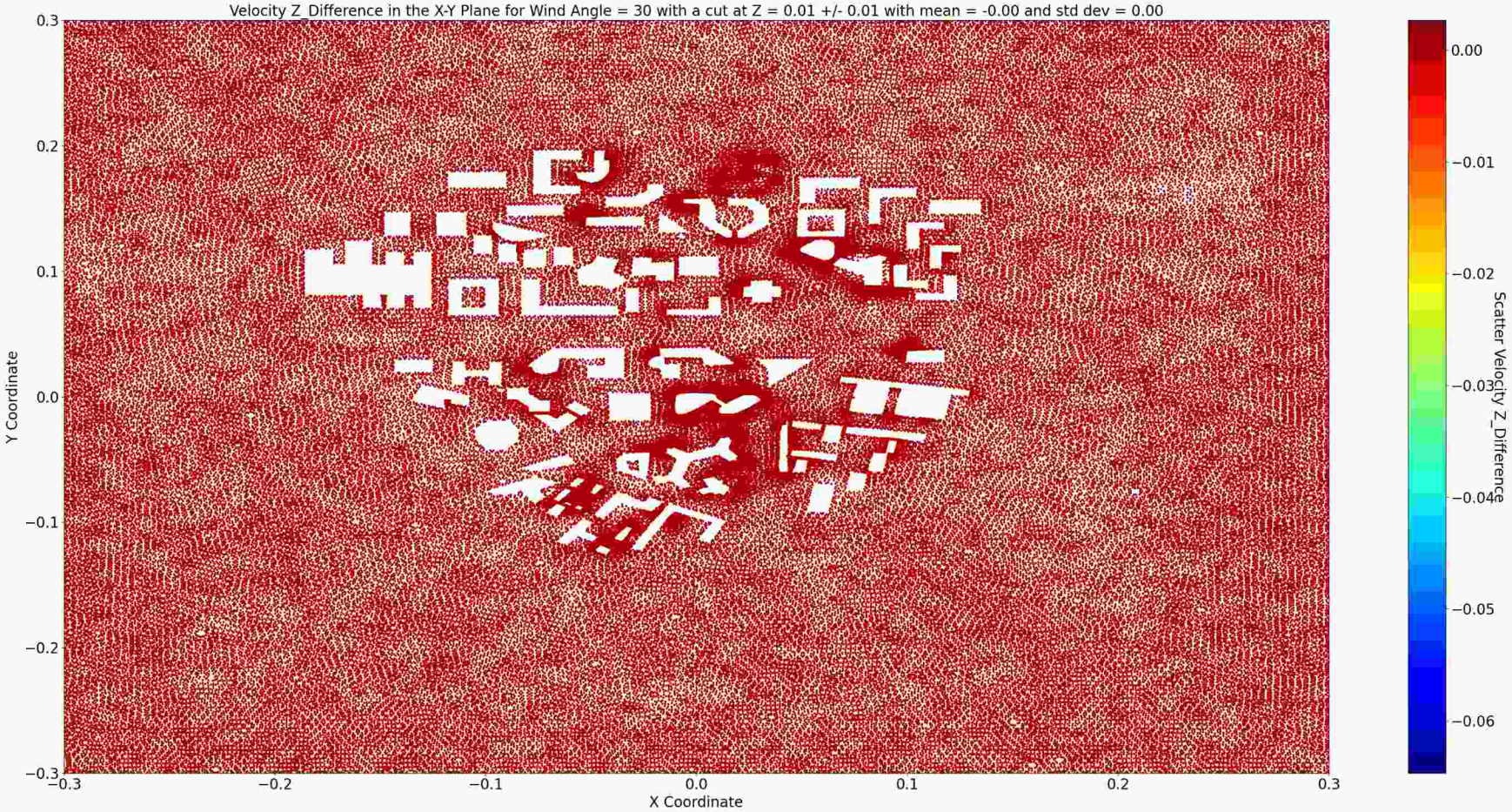
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

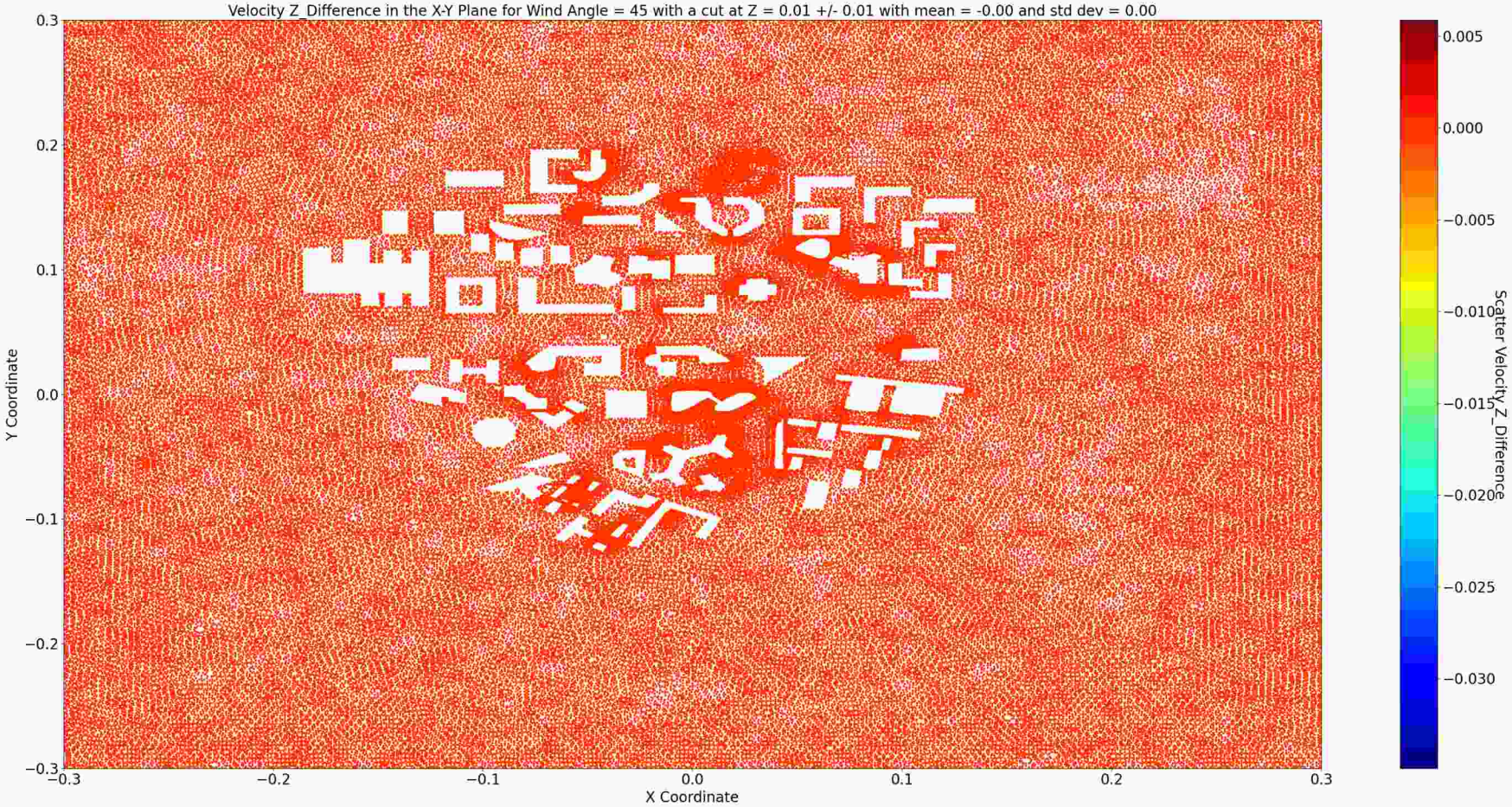


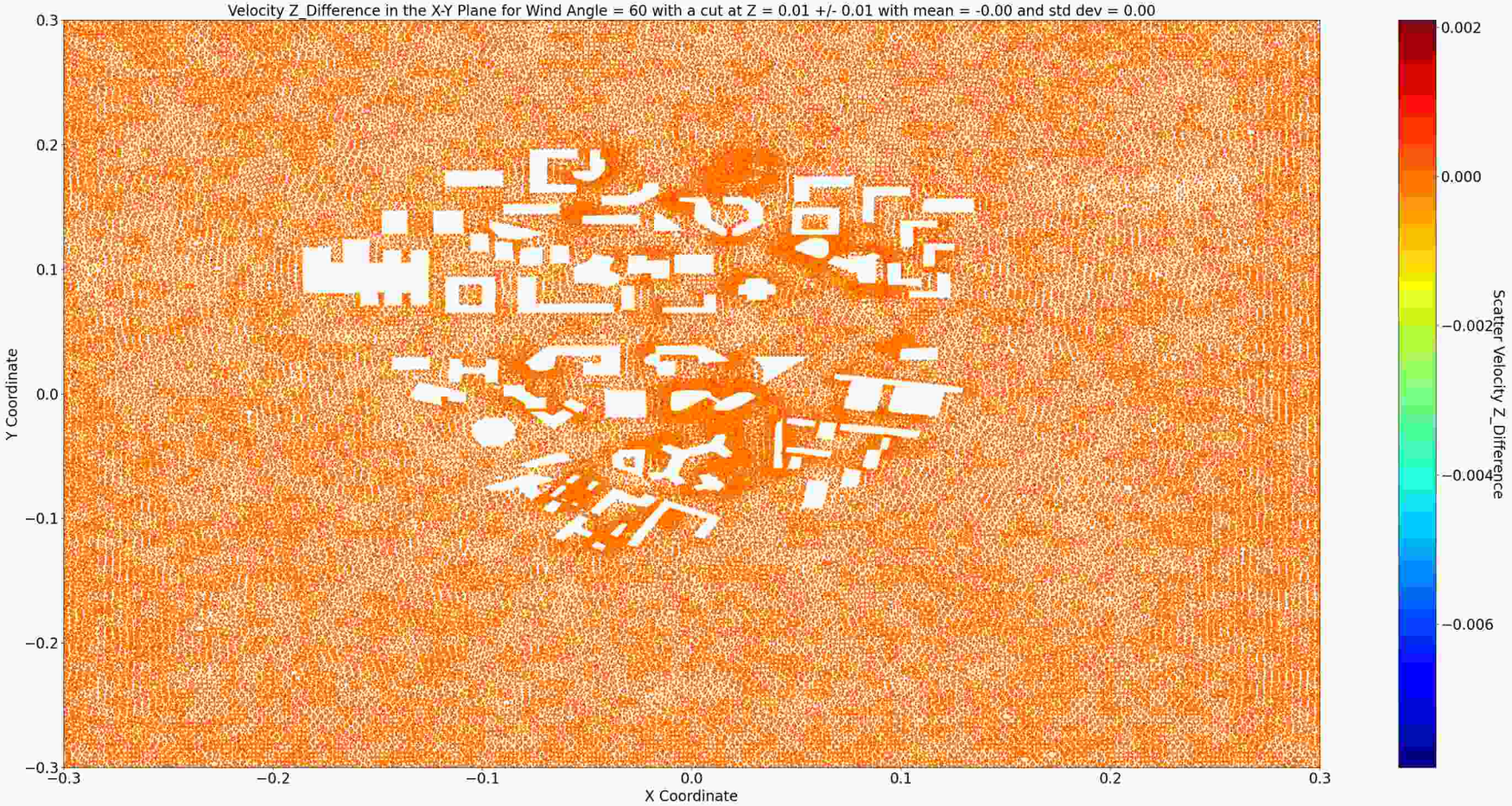


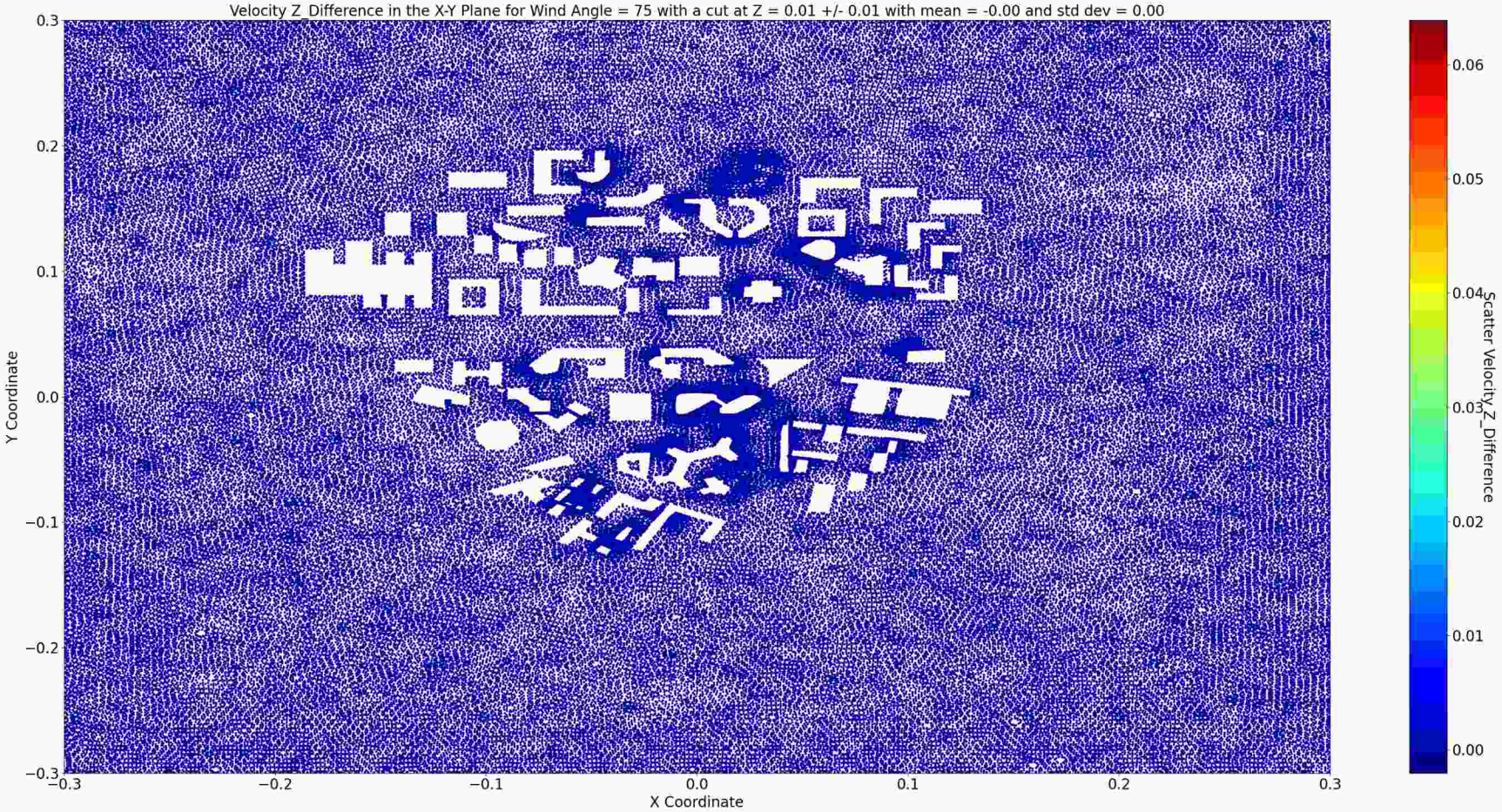

Velocity Z_Difference in the X-Y Plane for Wind Angle = 0 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Z_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.08
0.06
0.04
0.02
0.00
−0.02

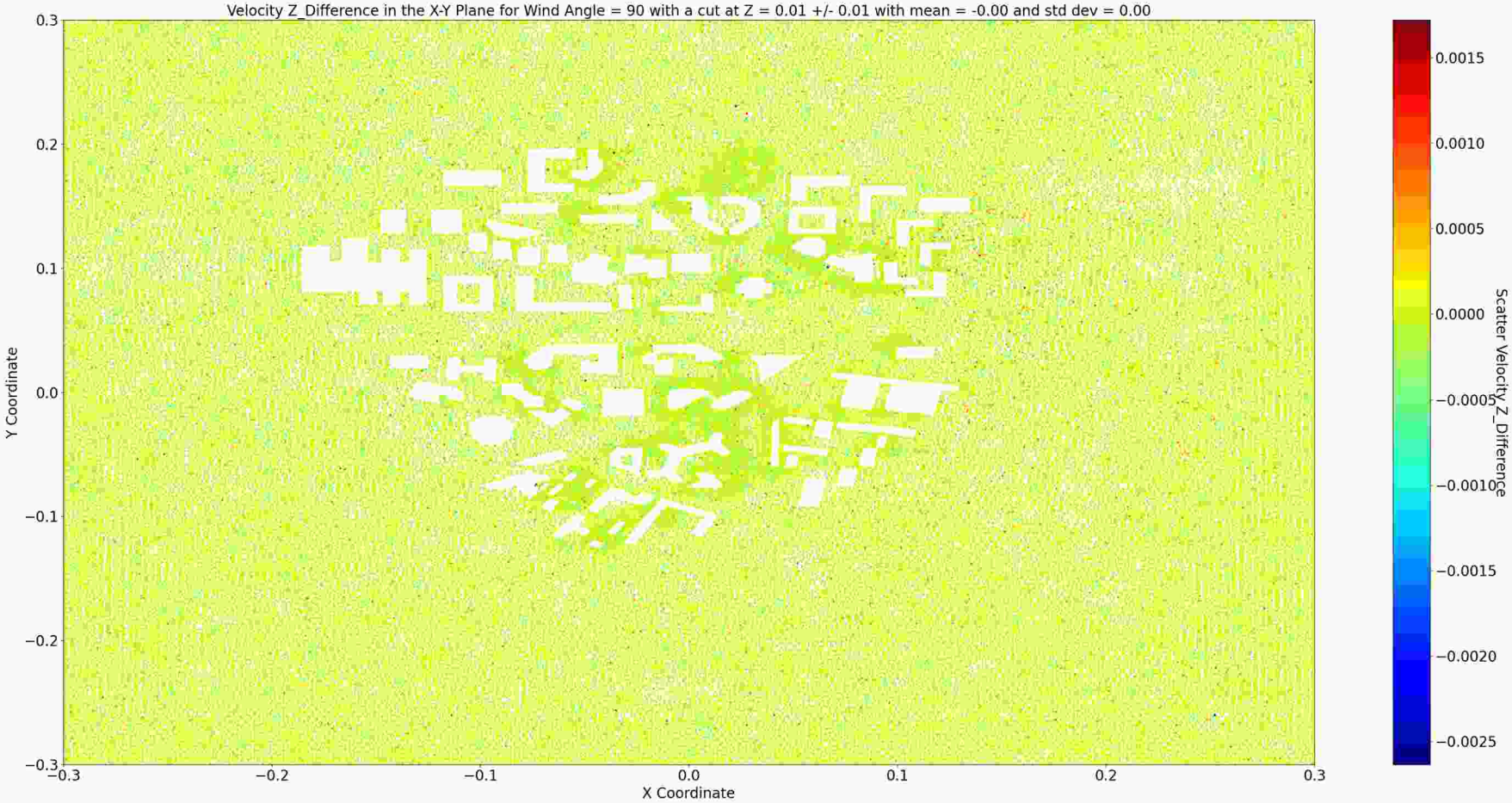

Velocity Z_Difference in the X-Y Plane for Wind Angle = 15 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Z_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.04
0.02
0.00
−0.02
−0.04
−0.06

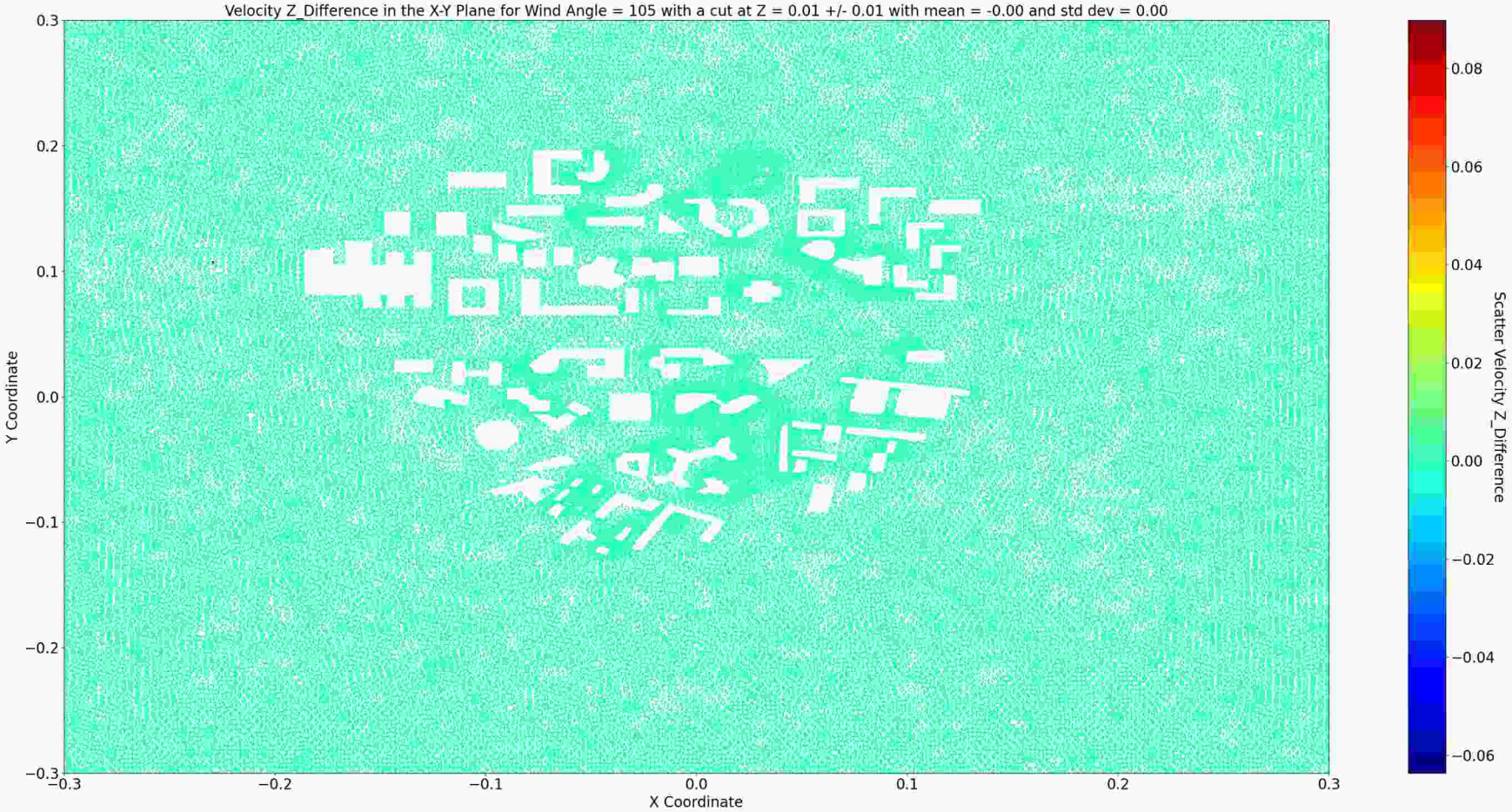

Velocity Z_Difference in the X-Y Plane for Wind Angle = 30 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Z_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.00
−0.01
−0.02
−0.03
−0.04
−0.05
−0.06

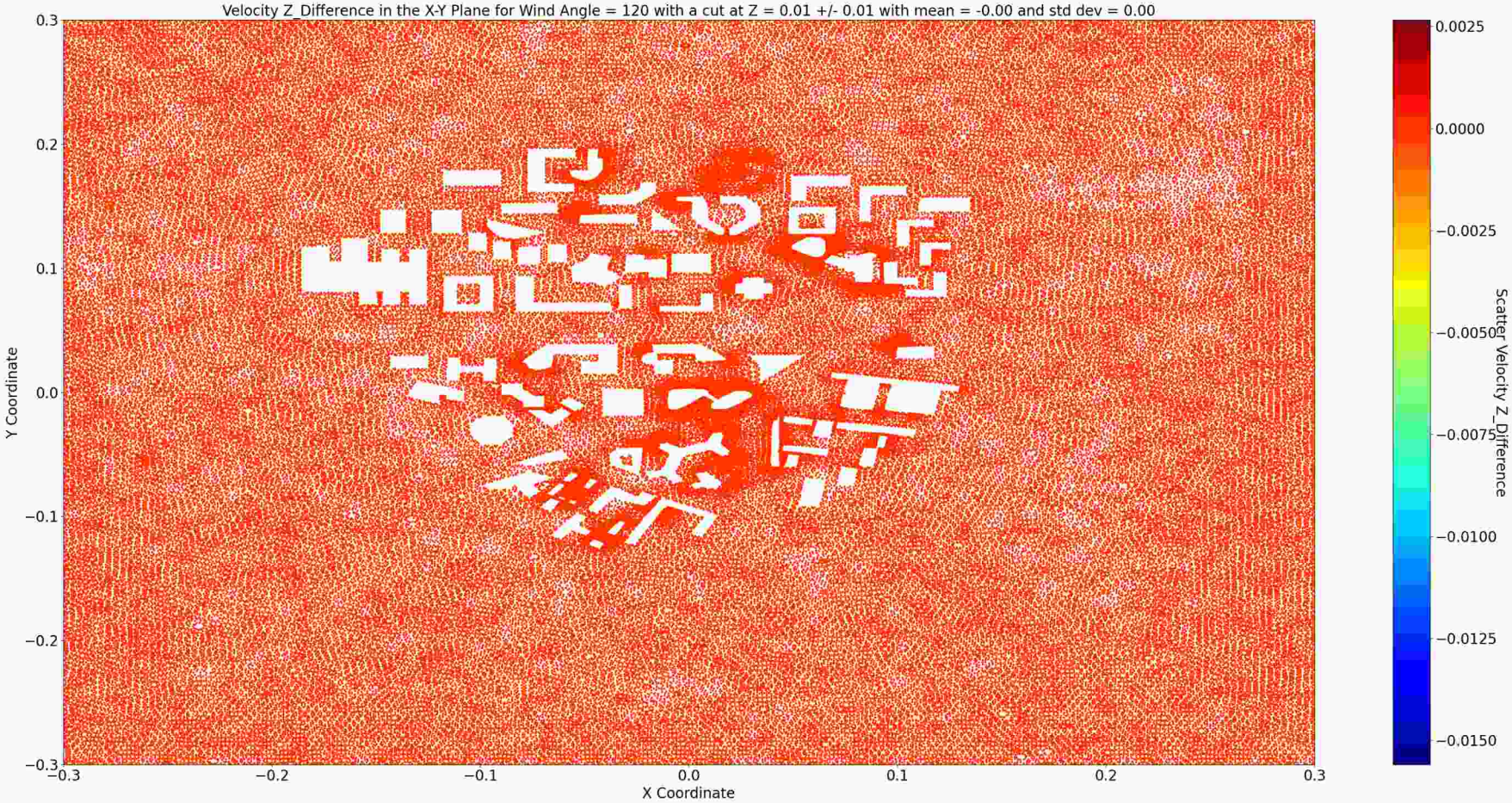

Velocity Z_Difference in the X-Y Plane for Wind Angle = 45 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity Z_Difference
0.005
0.000
−0.005
−0.010
−0.015
−0.020
−0.025
−0.030

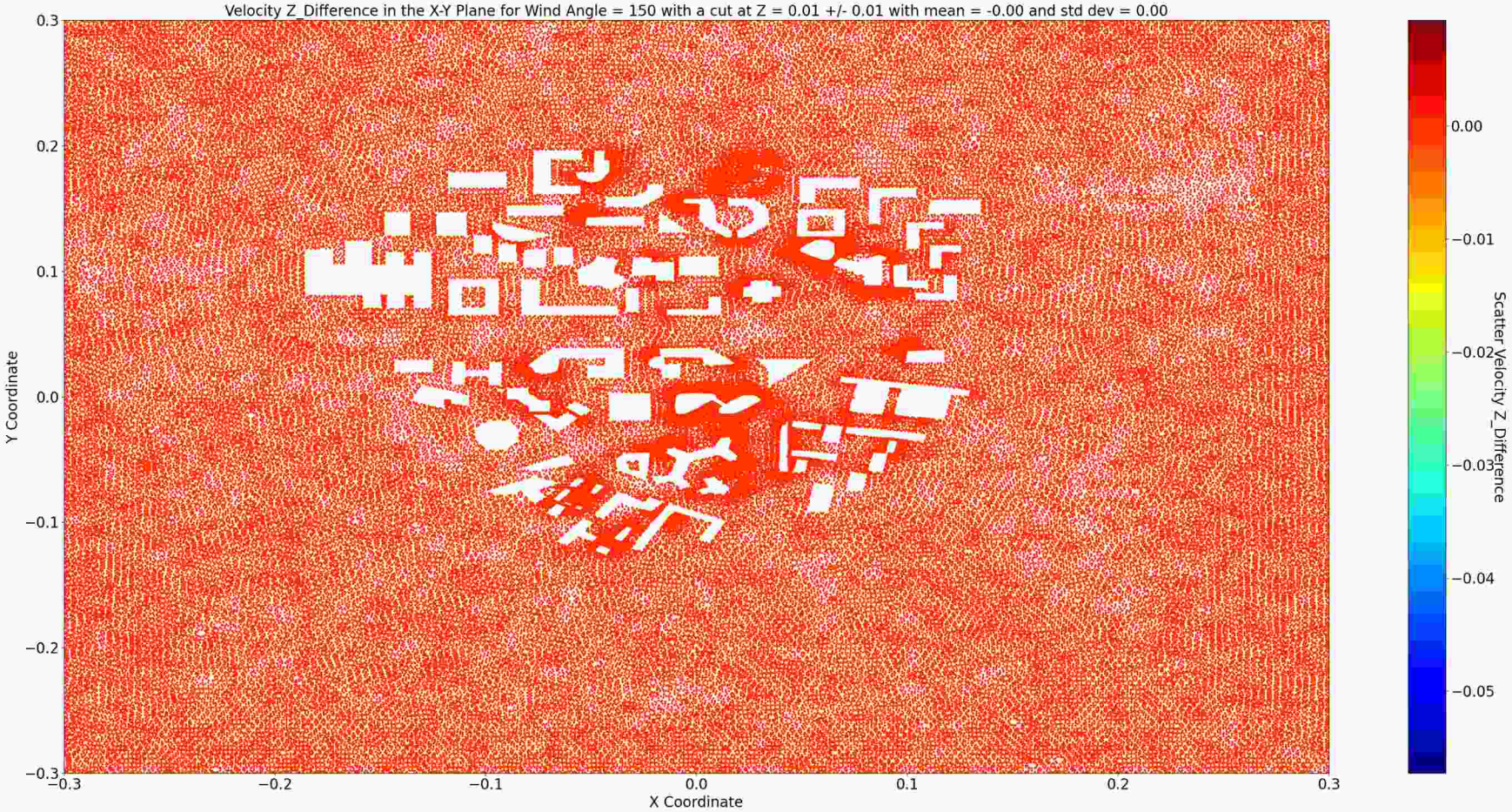

Velocity Z_Difference in the X-Y Plane for Wind Angle = 60 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Z_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.002
0.000
−0.002
−0.004
−0.006

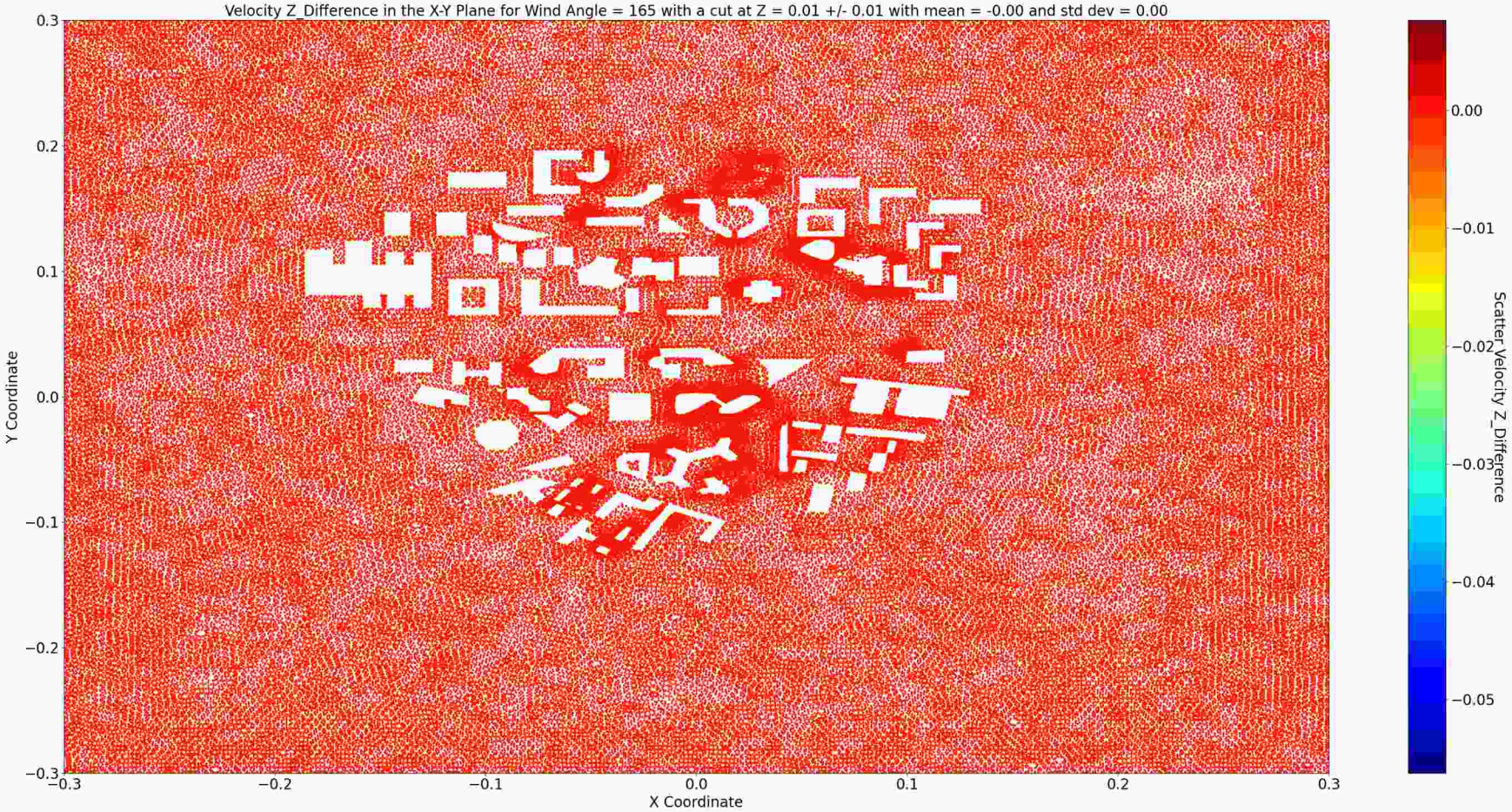

Velocity Z_Difference in the X-Y Plane for Wind Angle = 75 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Z_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.06
0.05
0.04
0.03
0.02
0.01
0.00

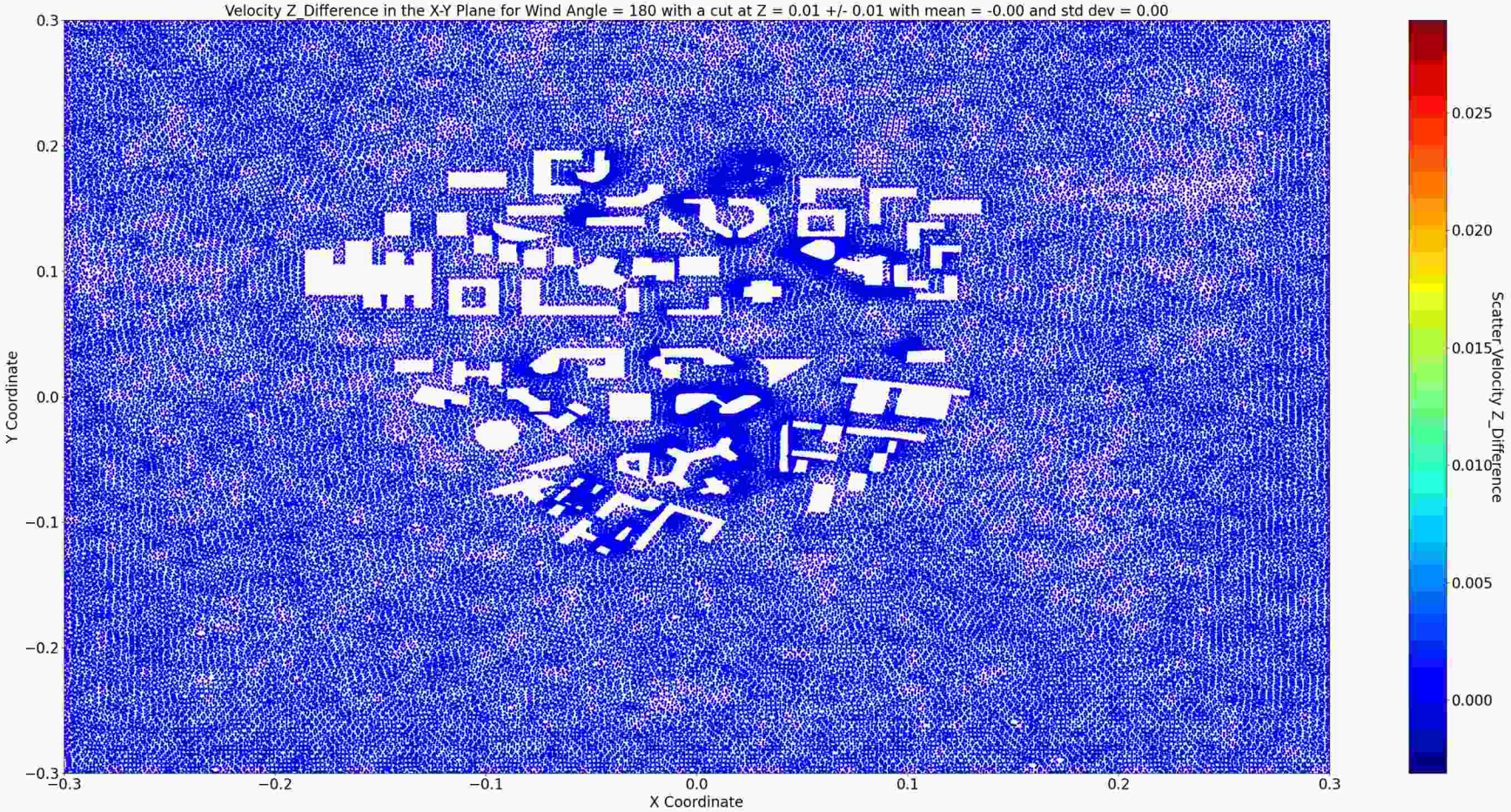

Velocity Z_Difference in the X-Y Plane for Wind Angle = 90 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Z_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015
−0.0020
−0.0025


Velocity Z_Difference in the X-Y Plane for Wind Angle = 105 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
Scatter Velocity Z_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.08
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06

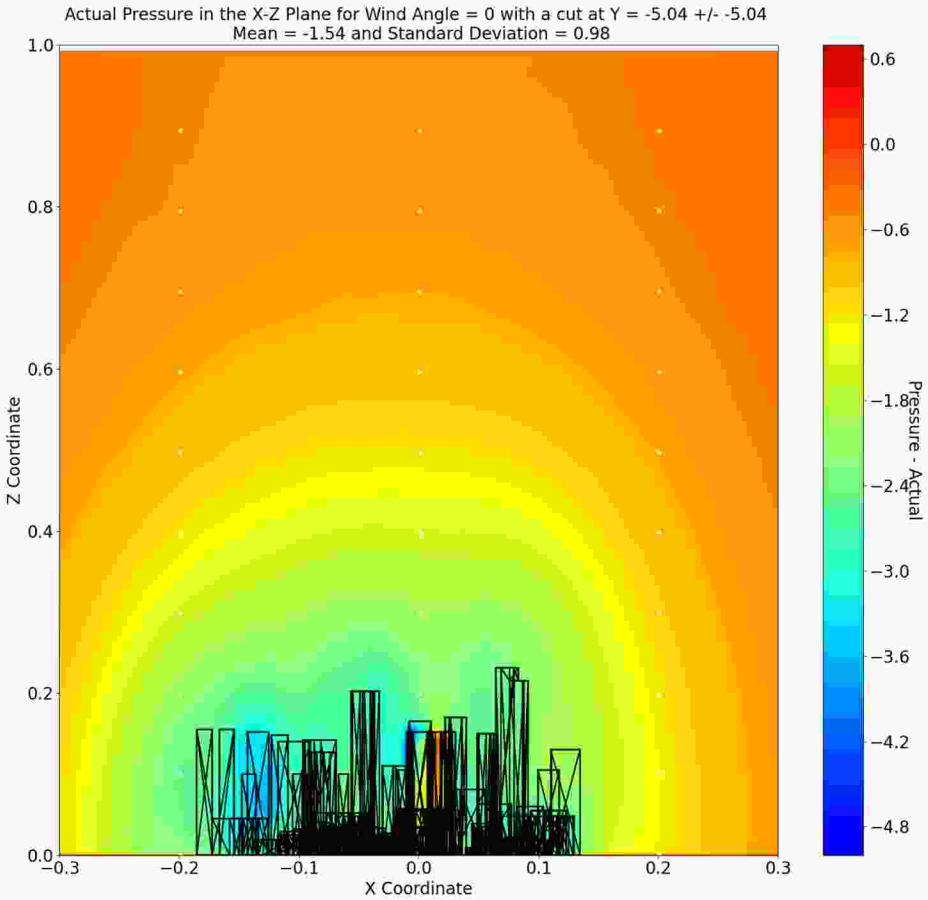

Velocity Z_Difference in the X-Y Plane for Wind Angle = 120 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity Z_Difference
0.0025
0.0000
−0.0025
−0.0050
−0.0075
−0.0100
−0.0125
−0.0150

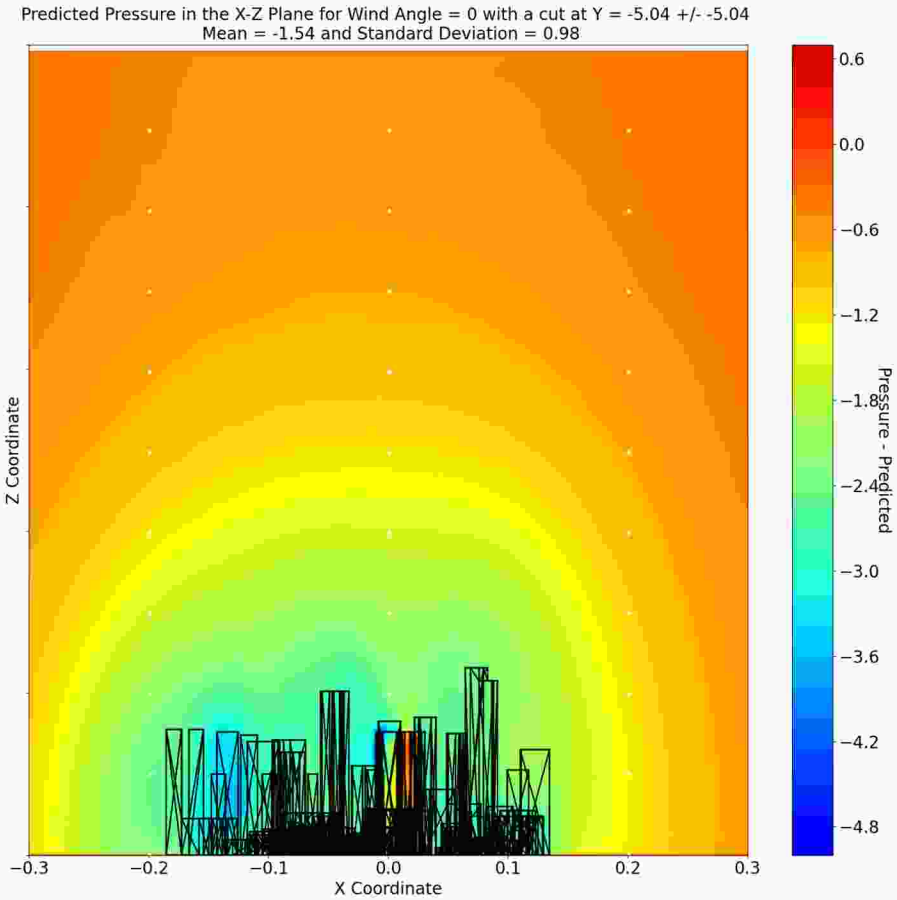

Velocity Z_Difference in the X-Y Plane for Wind Angle = 150 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity Z_Difference
0.00
−0.01
−0.02
−0.03
−0.04
−0.05


Velocity Z_Difference in the X-Y Plane for Wind Angle = 165 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity Z_Difference
0.00
−0.01
−0.02
−0.03
−0.04
−0.05

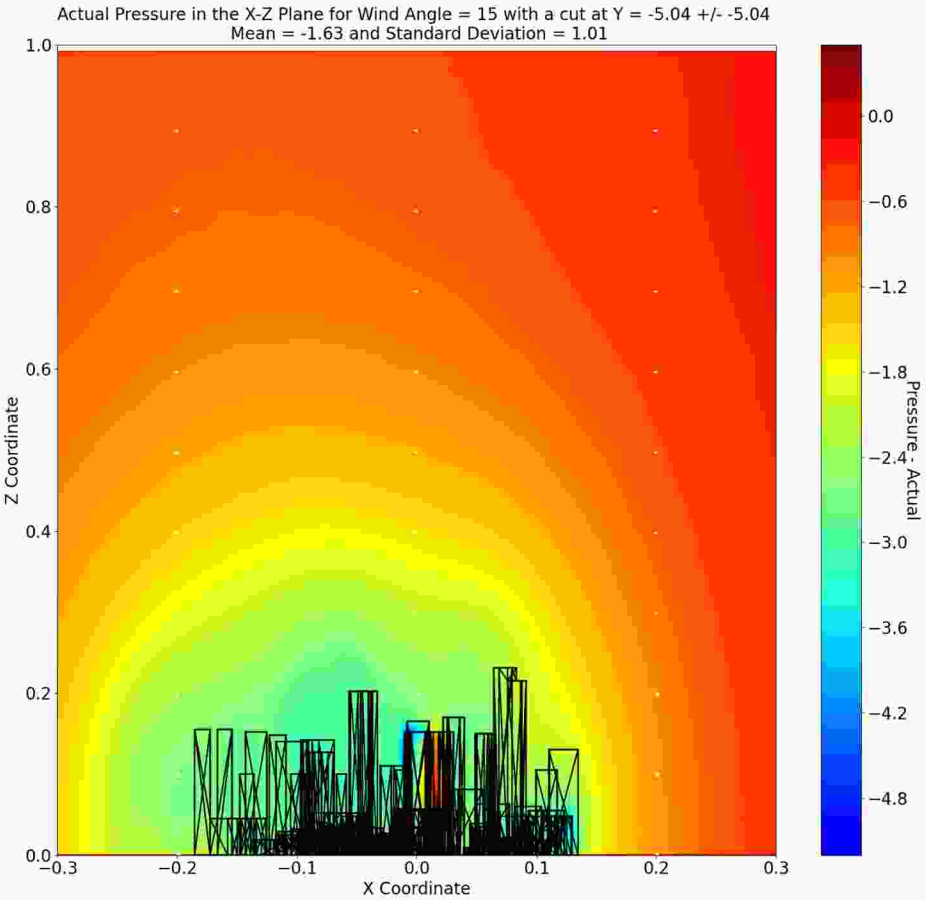

Velocity Z_Difference in the X-Y Plane for Wind Angle = 180 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.00
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity Z_Difference
0.025
0.020
0.015
0.010
0.005
0.000

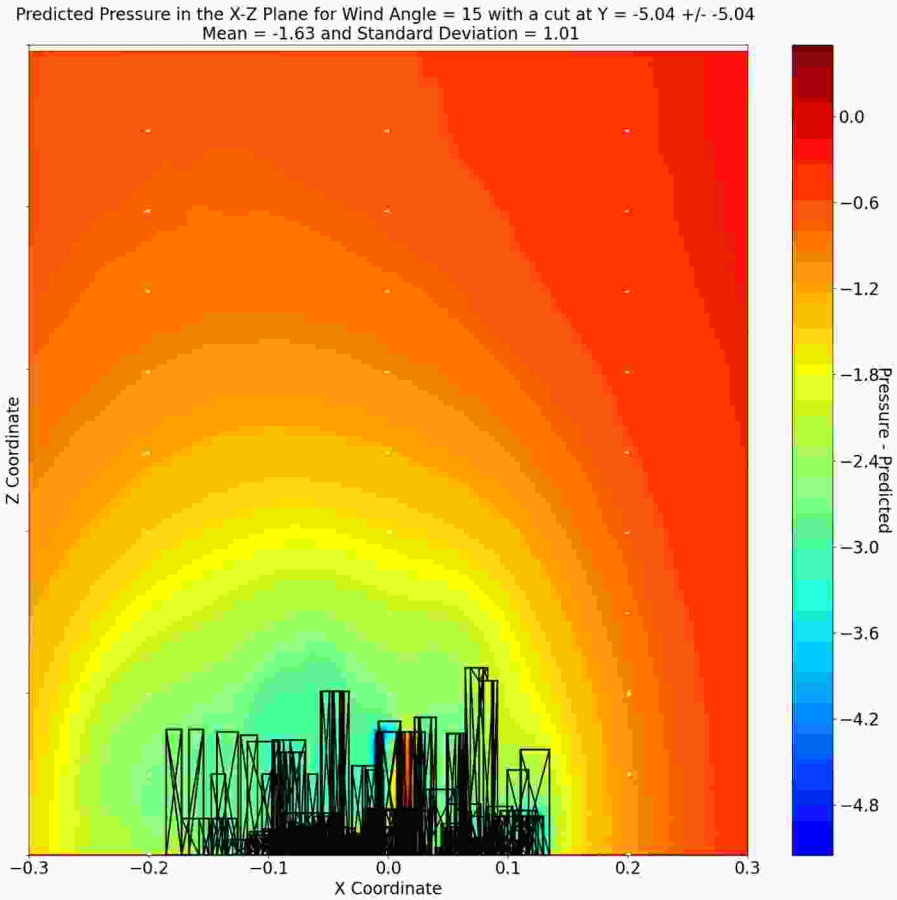
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



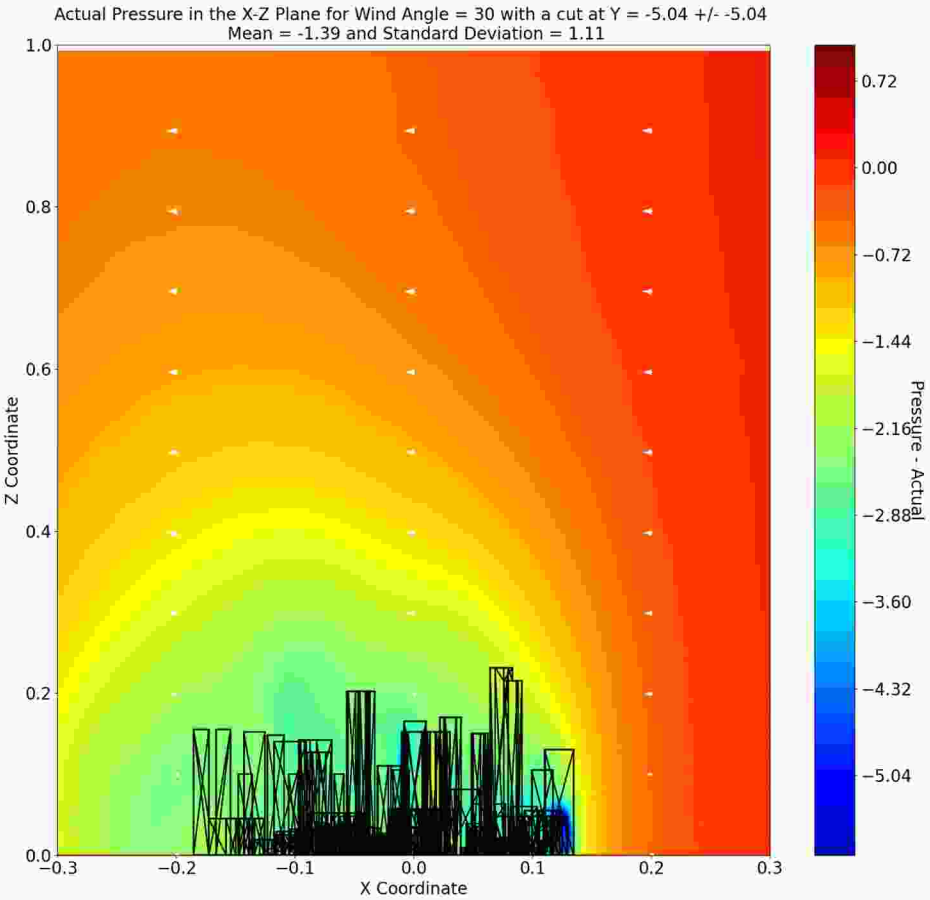


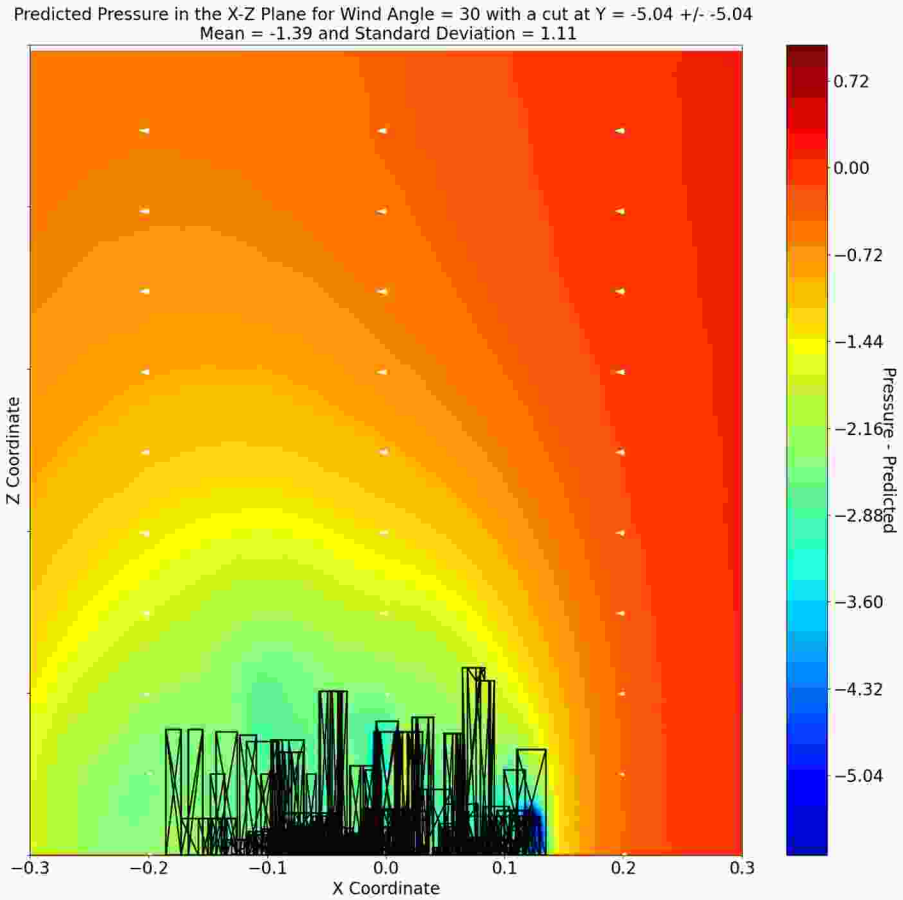
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

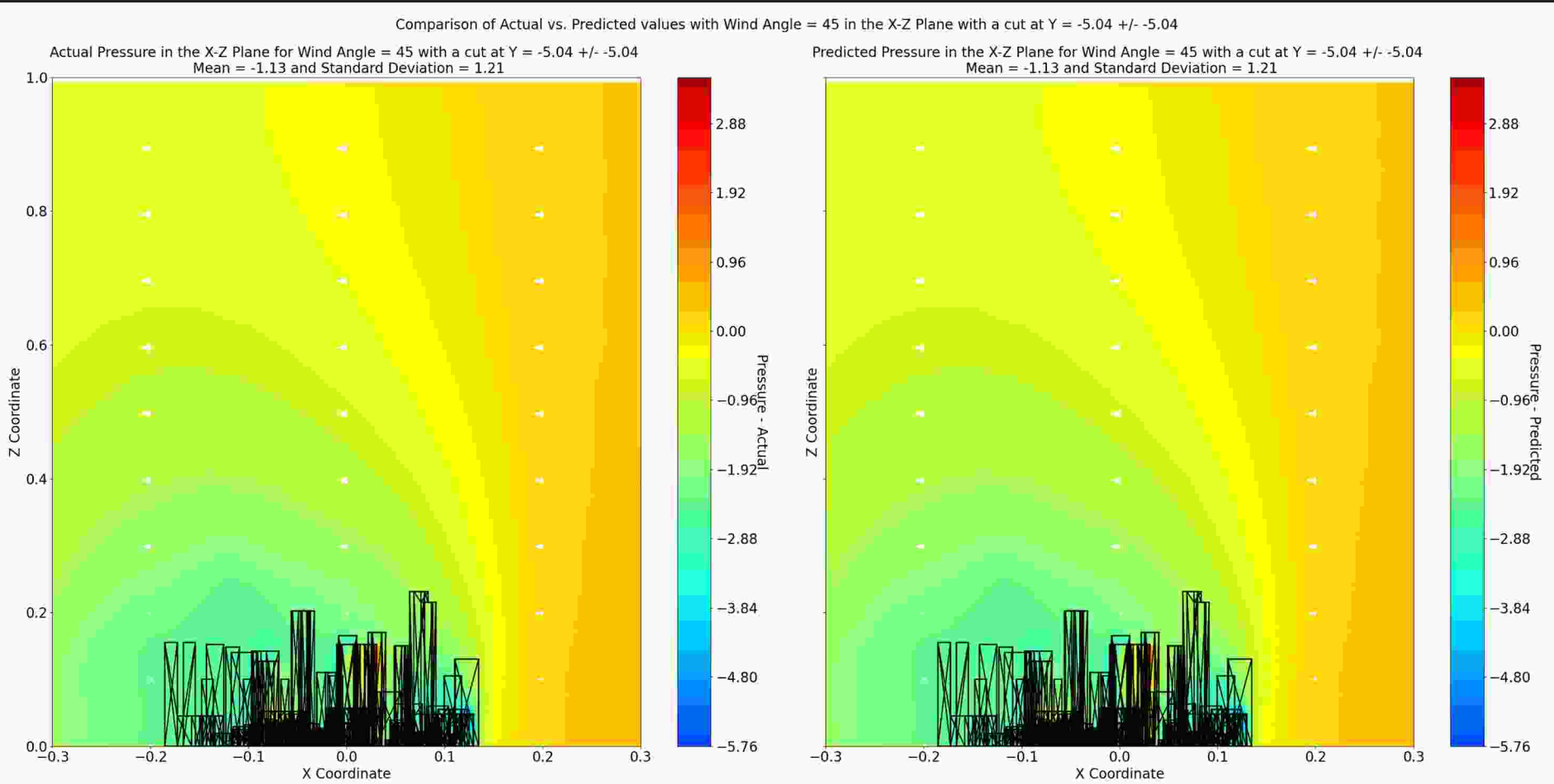




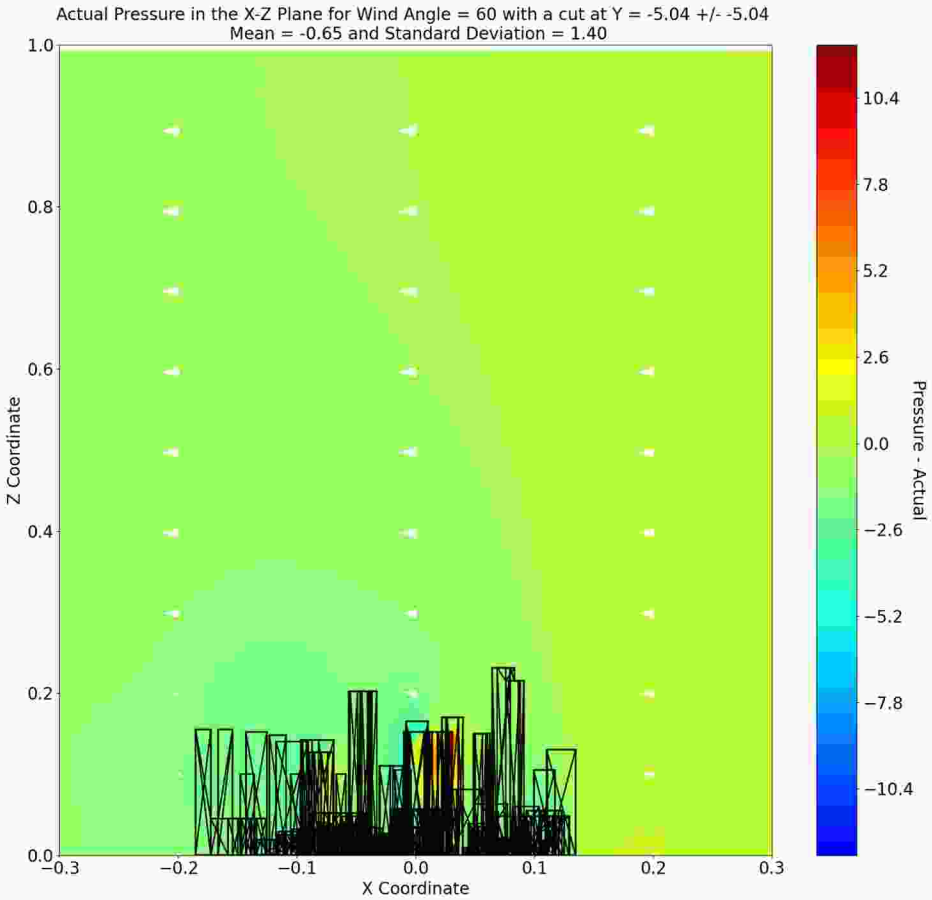
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

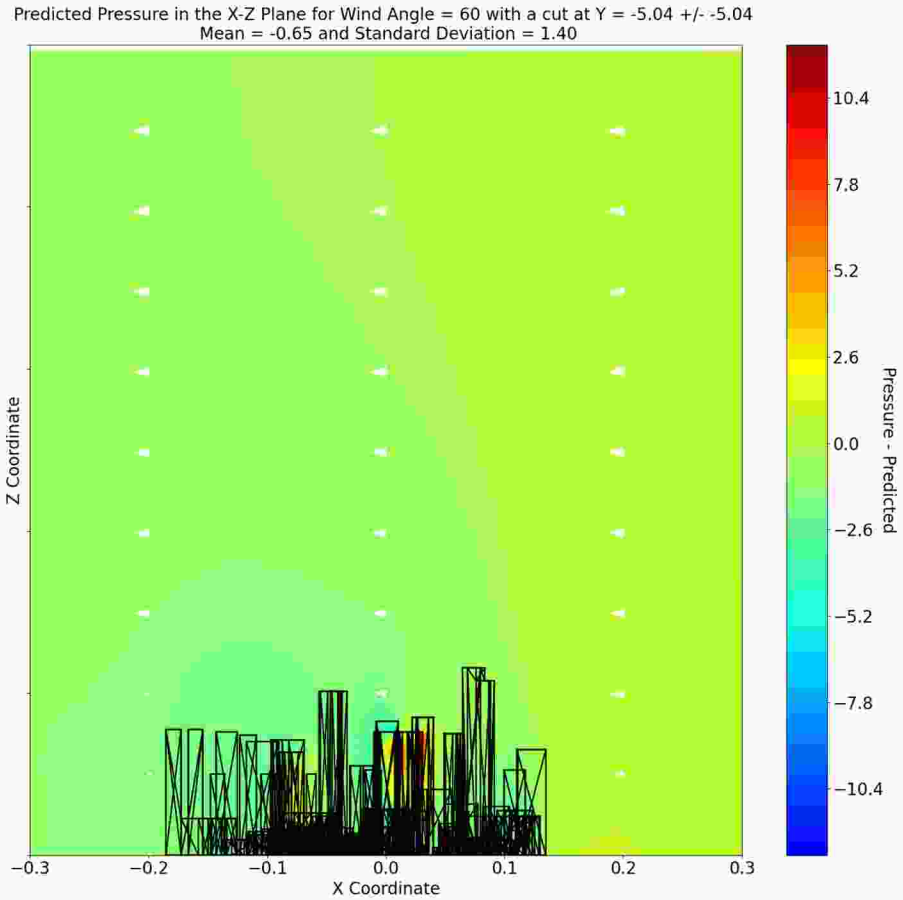




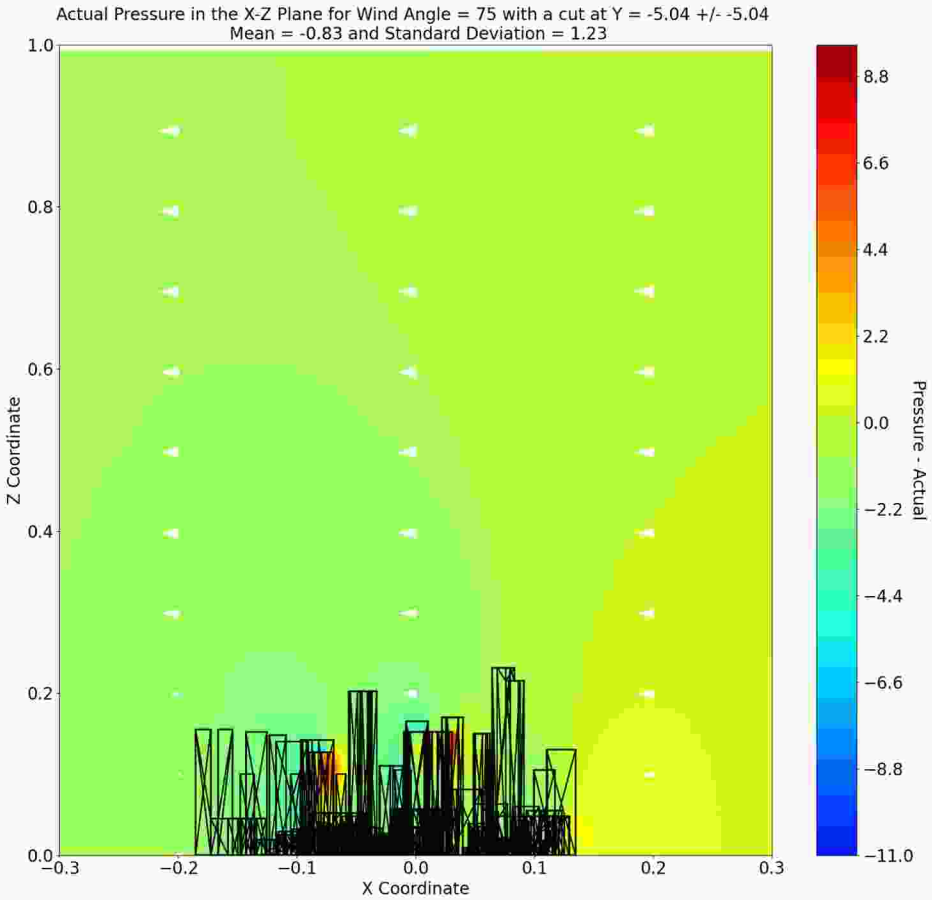

Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04
Actual Pressure in the X-Z Plane for Wind Angle = 45 with a cut at Y = -5.04 +/- -5.04
Mean = -1.13 and Standard Deviation = 1.21
Predicted Pressure in the X-Z Plane for Wind Angle = 45 with a cut at Y = -5.04 +/- -5.04
Mean = -1.13 and Standard Deviation = 1.21
Z Coordinate
X Coordinate
Pressure - Actual
Pressure - Predicted
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
2.88
1.92
0.96
0.00
−0.96
−1.92
−2.88
−3.84
−4.80
−5.76

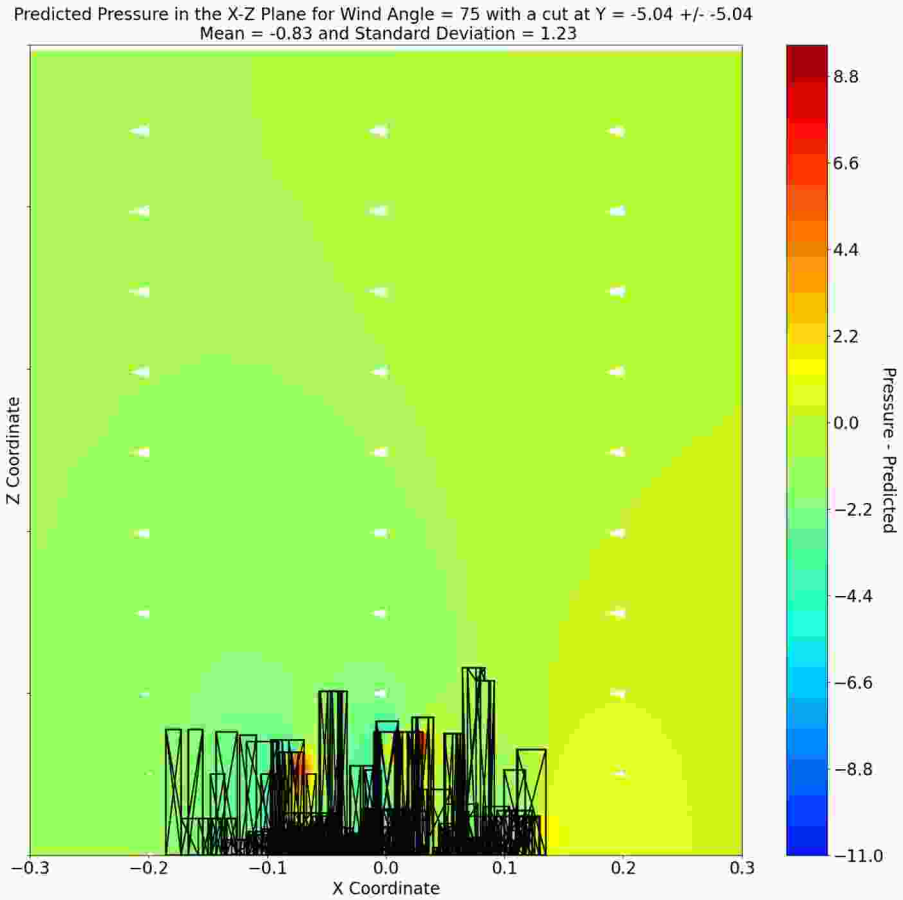
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

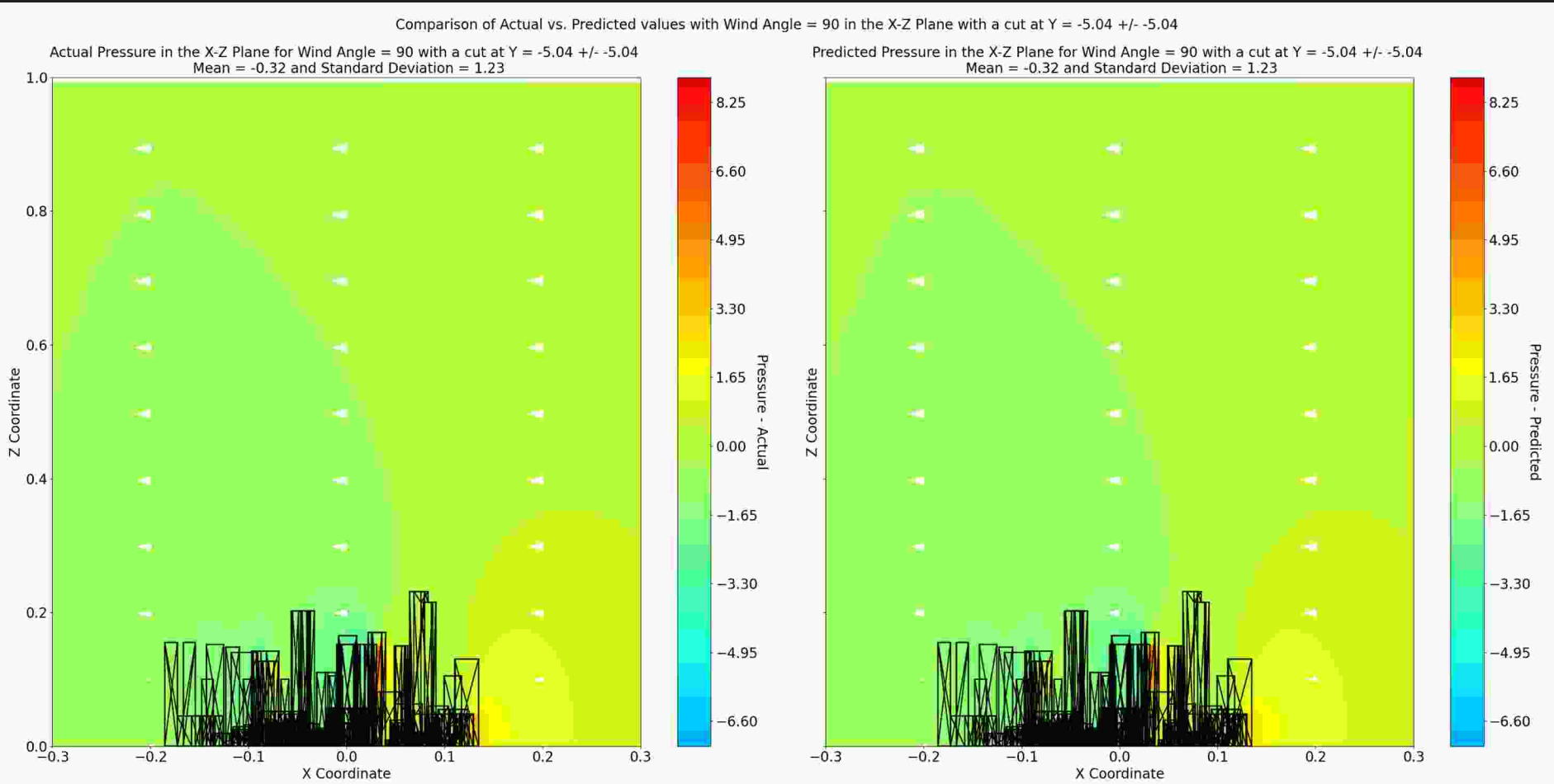




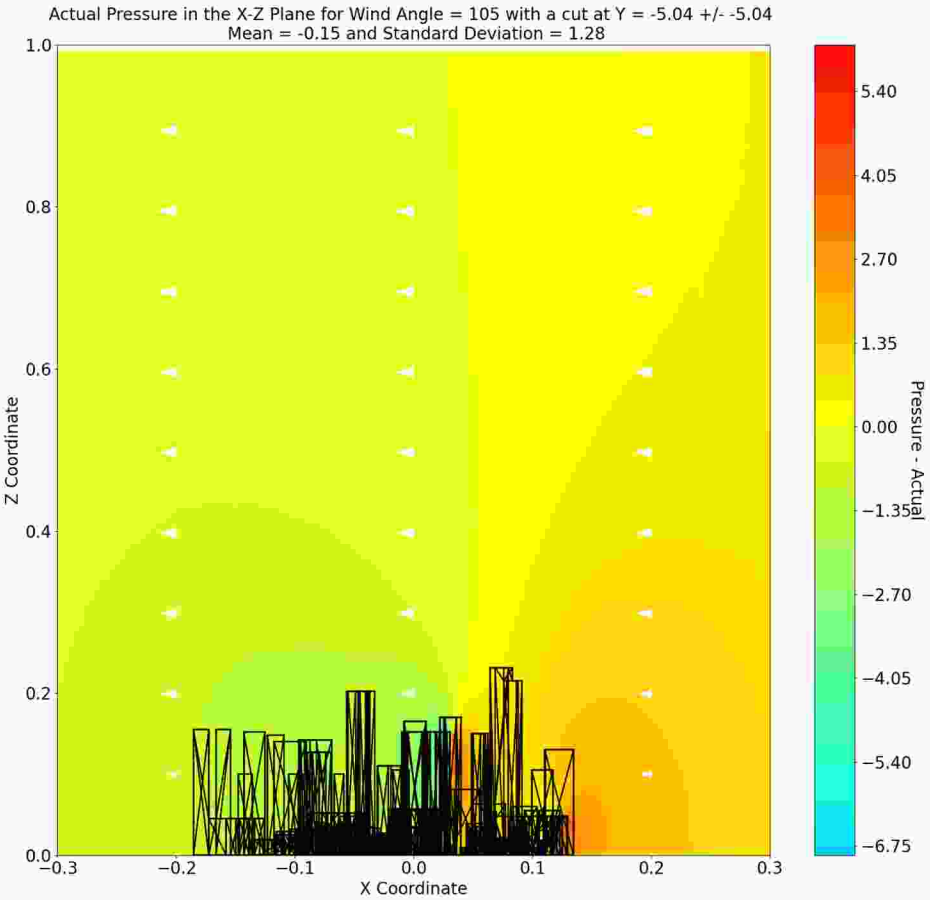
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

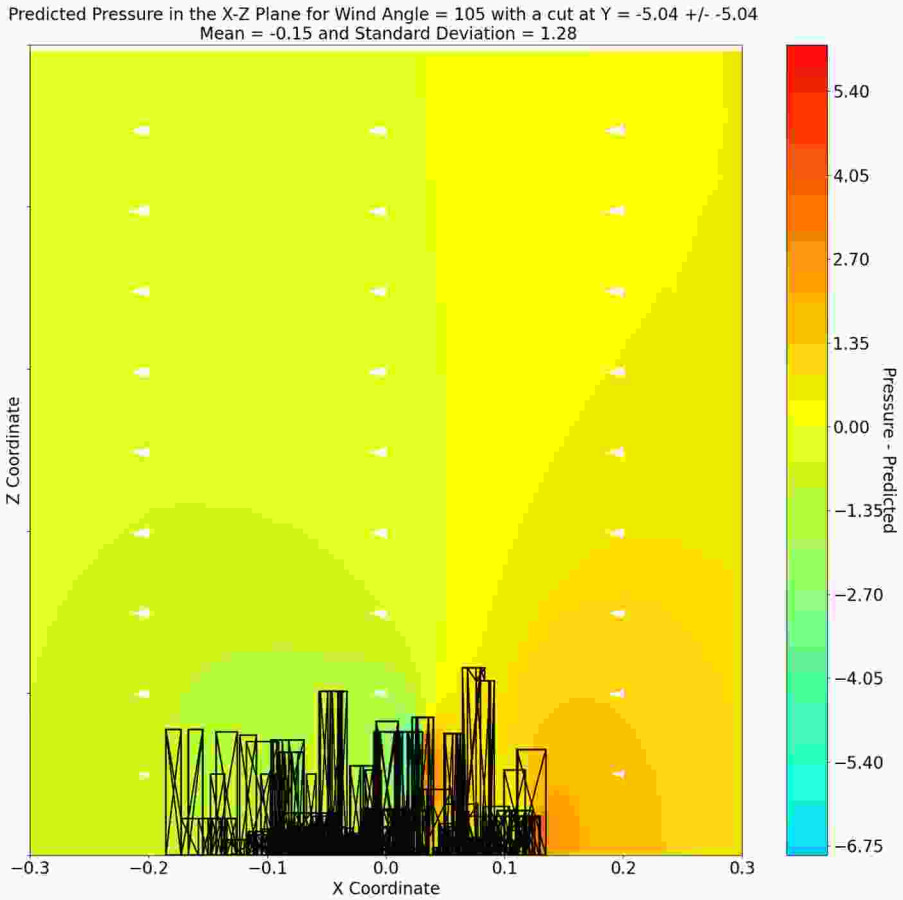




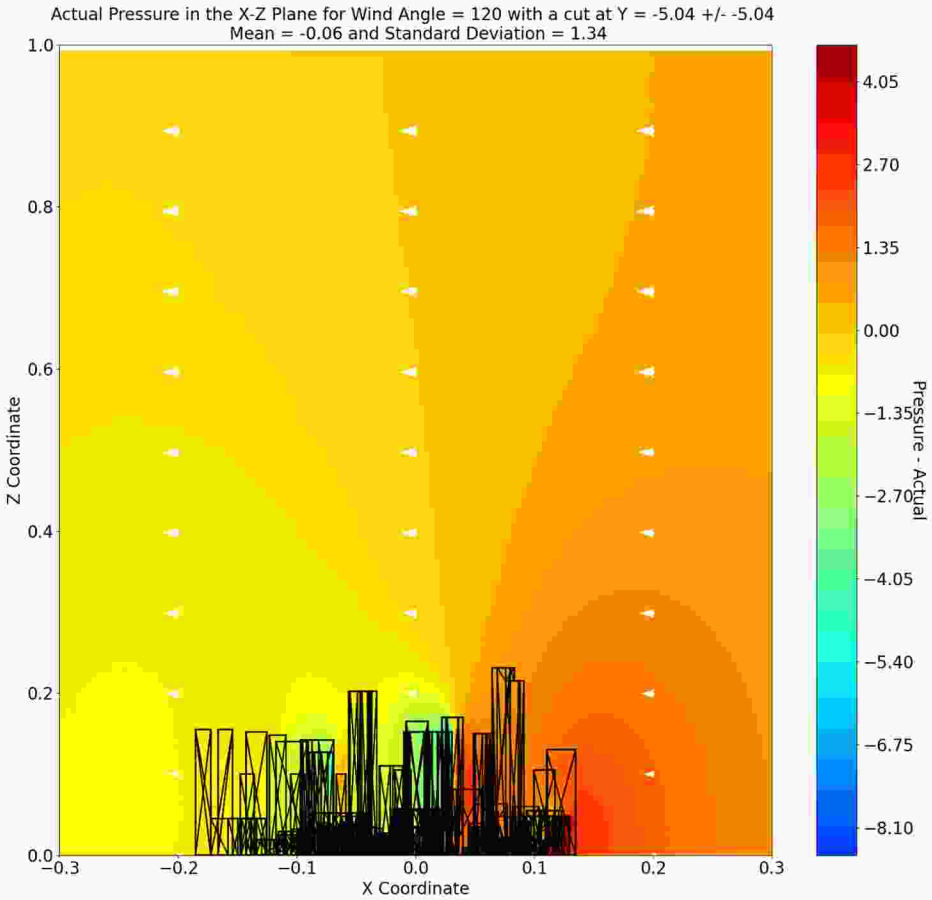

Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04
Actual Pressure in the X-Z Plane for Wind Angle = 90 with a cut at Y = -5.04 +/- -5.04
Mean = -0.32 and Standard Deviation = 1.23
Predicted Pressure in the X-Z Plane for Wind Angle = 90 with a cut at Y = -5.04 +/- -5.04
Mean = -0.32 and Standard Deviation = 1.23
Z Coordinate
X Coordinate
Pressure - Actual
Pressure - Predicted
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
8.25
6.60
4.95
3.30
1.65
0.00
−1.65
−3.30
−4.95
−6.60

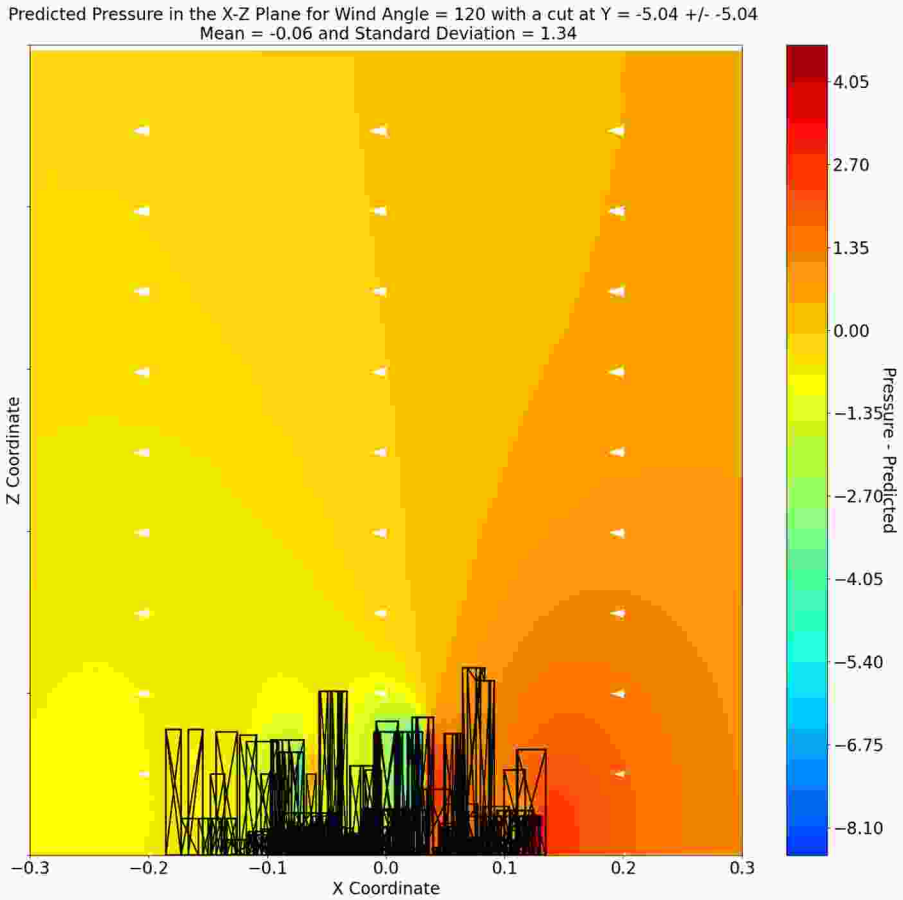
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



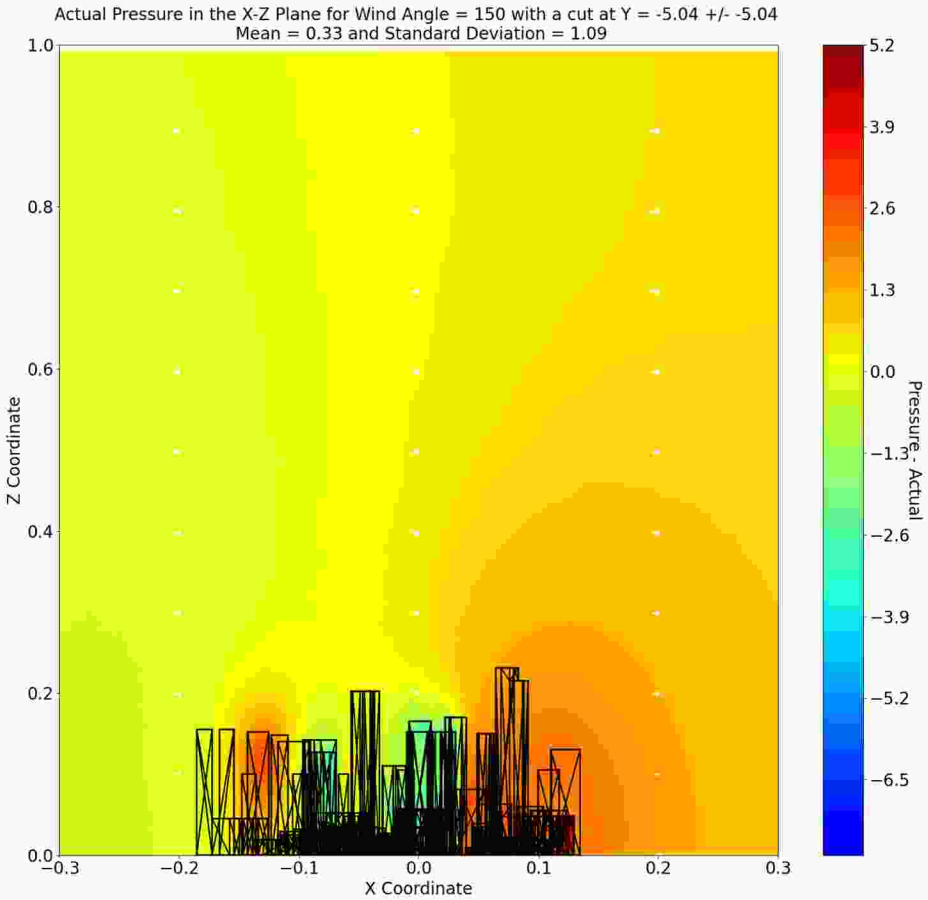


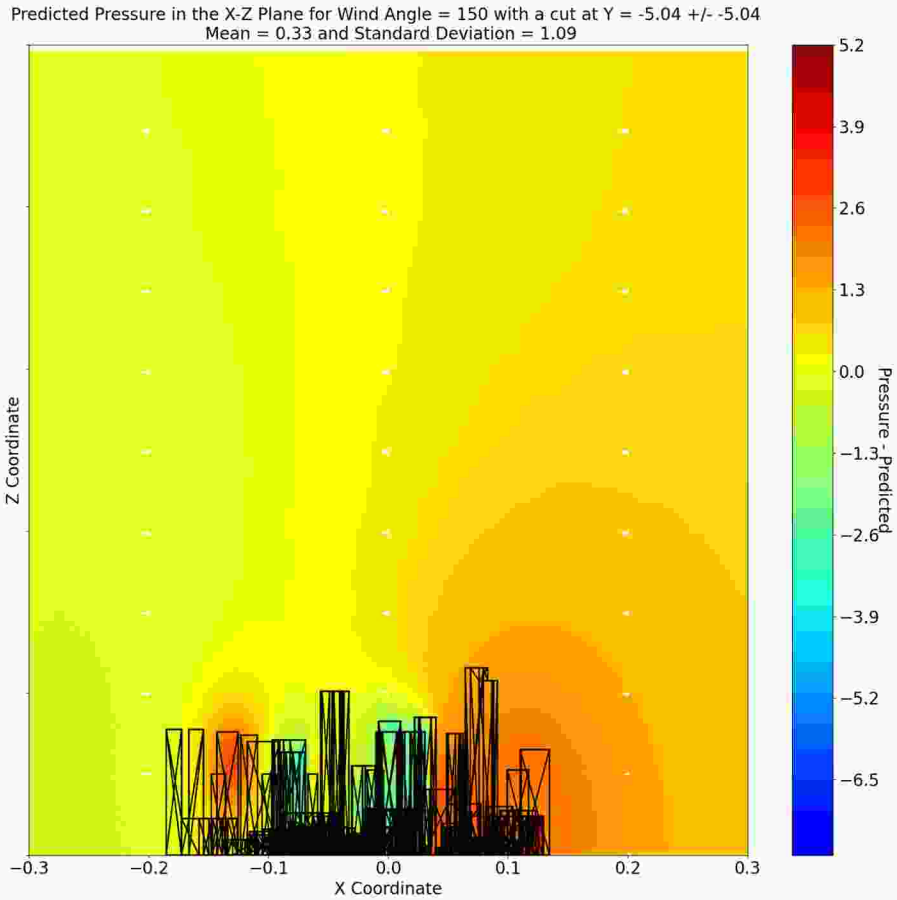
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



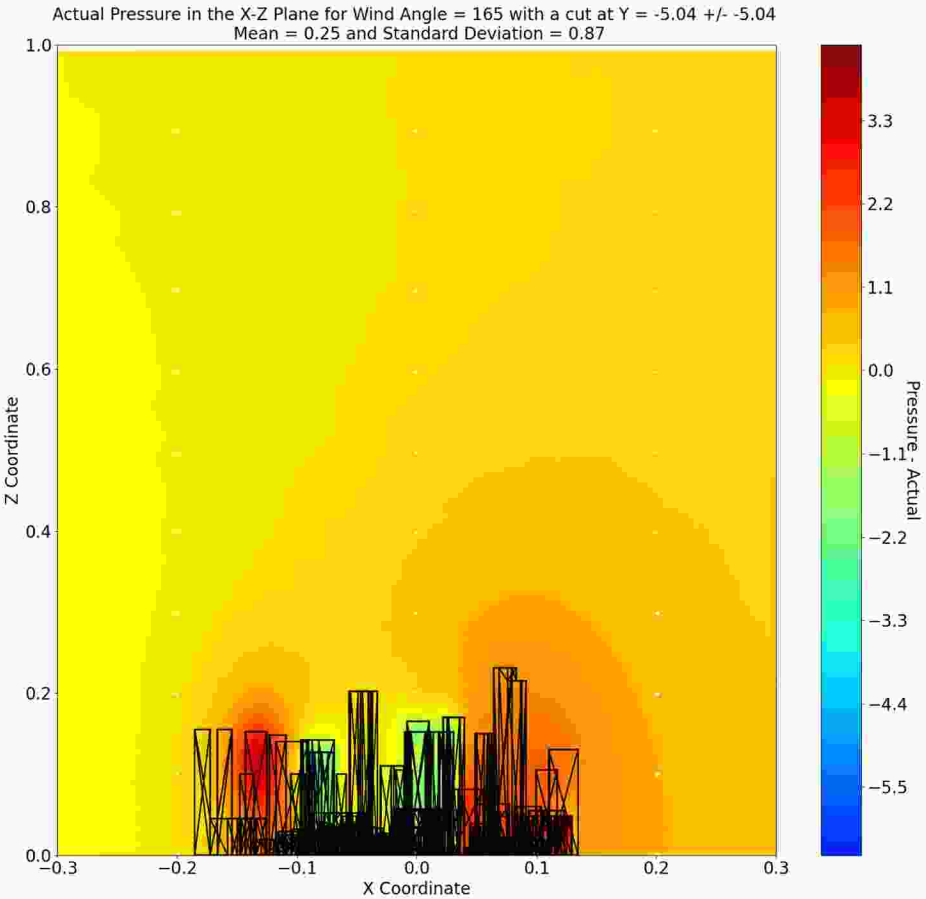


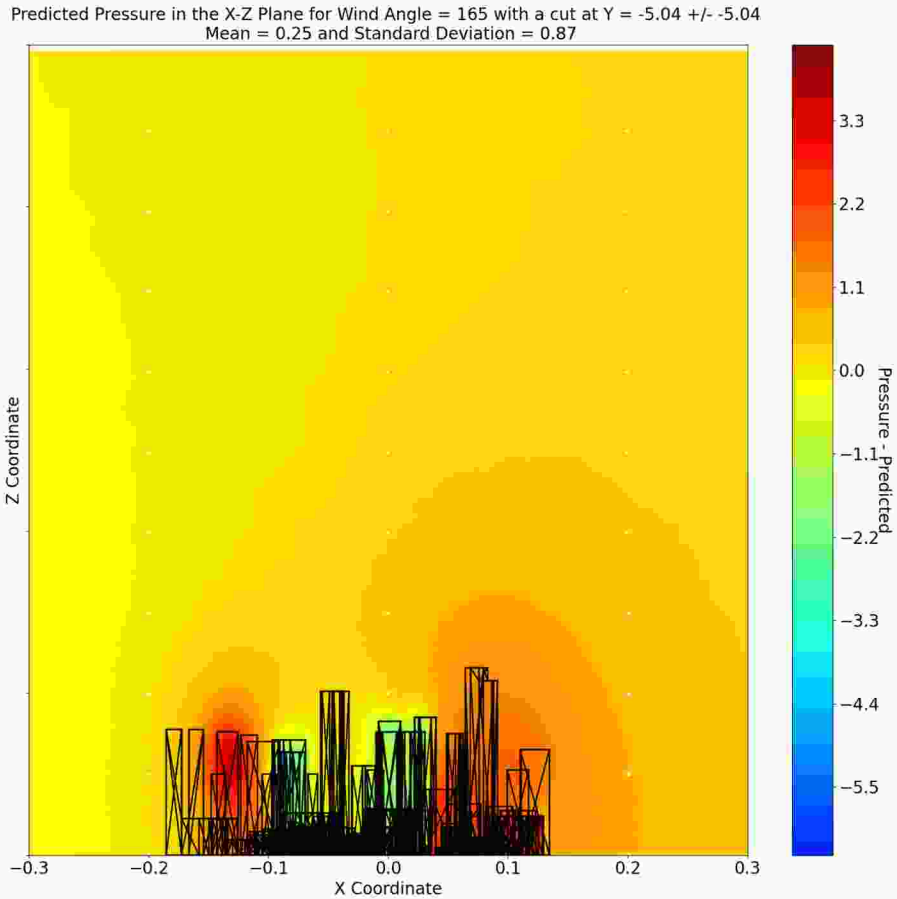
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



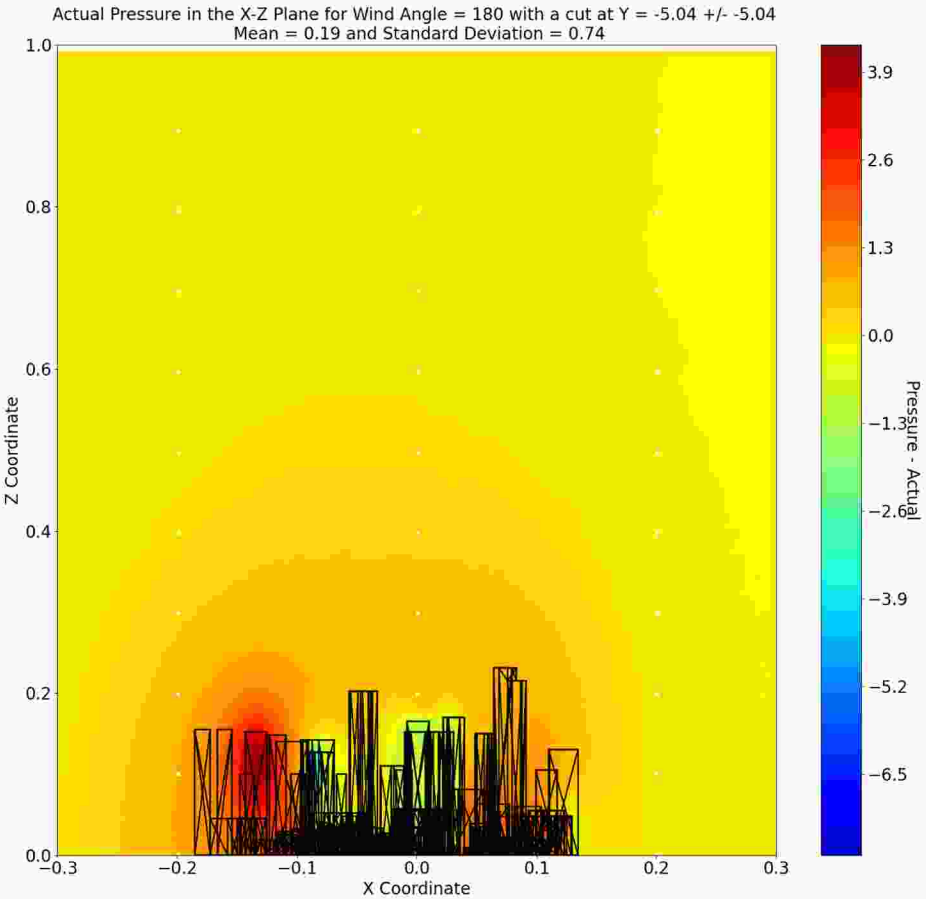


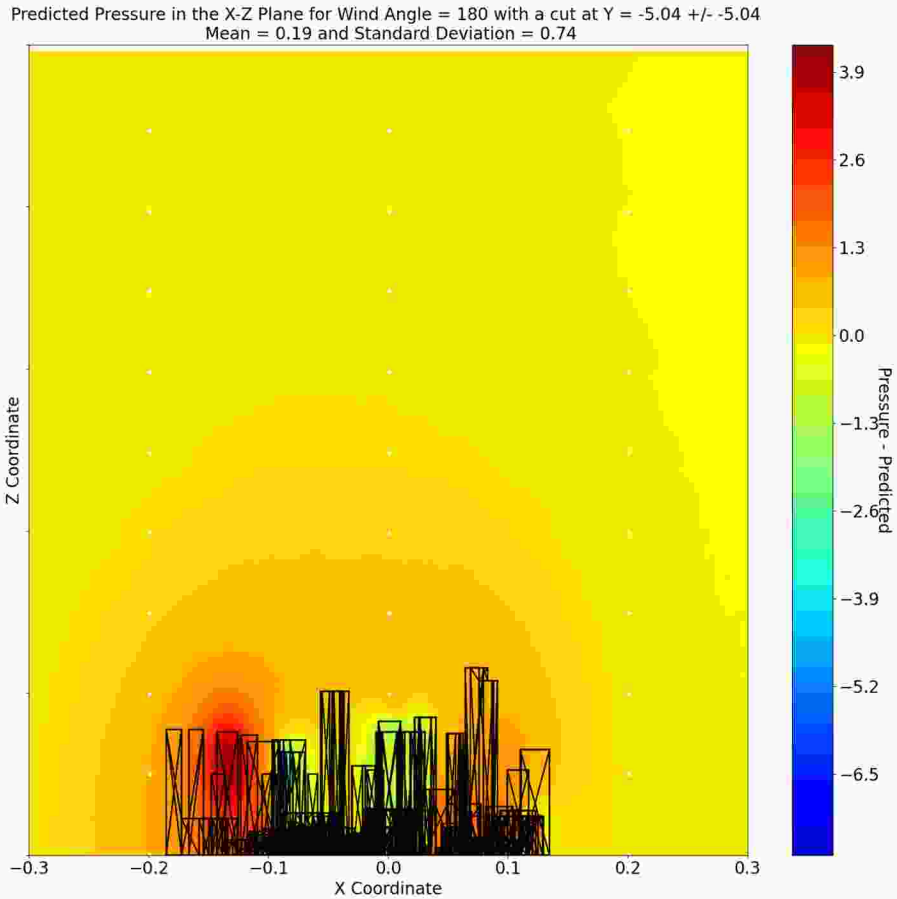
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



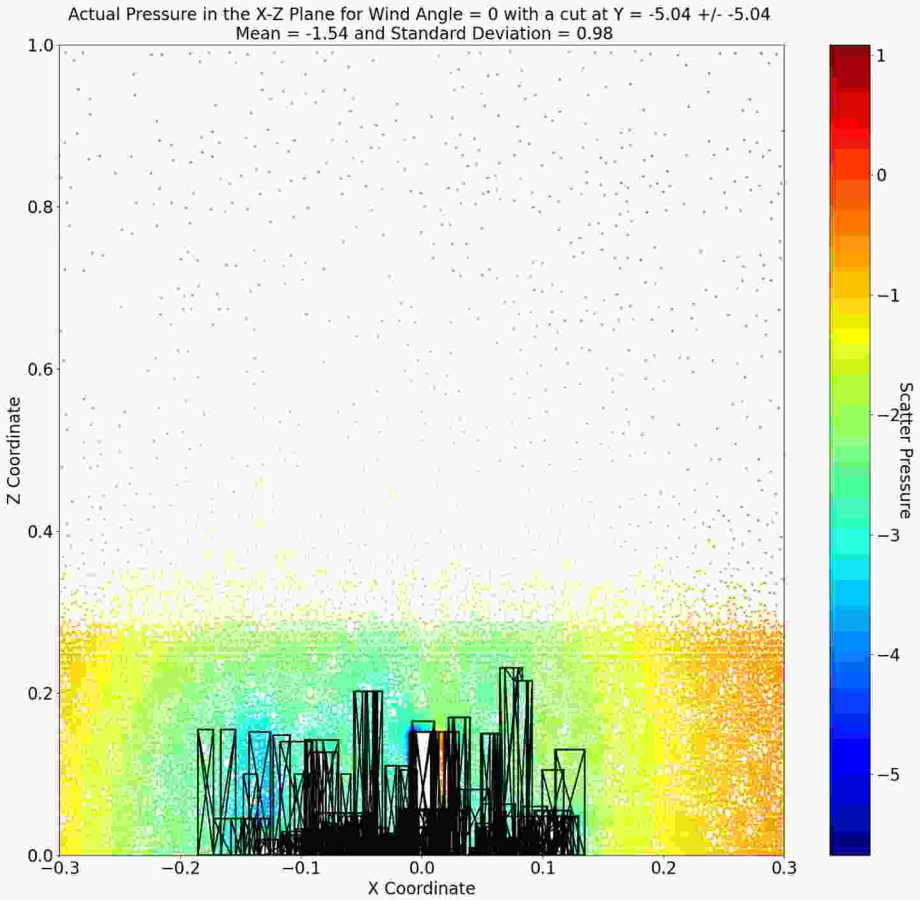


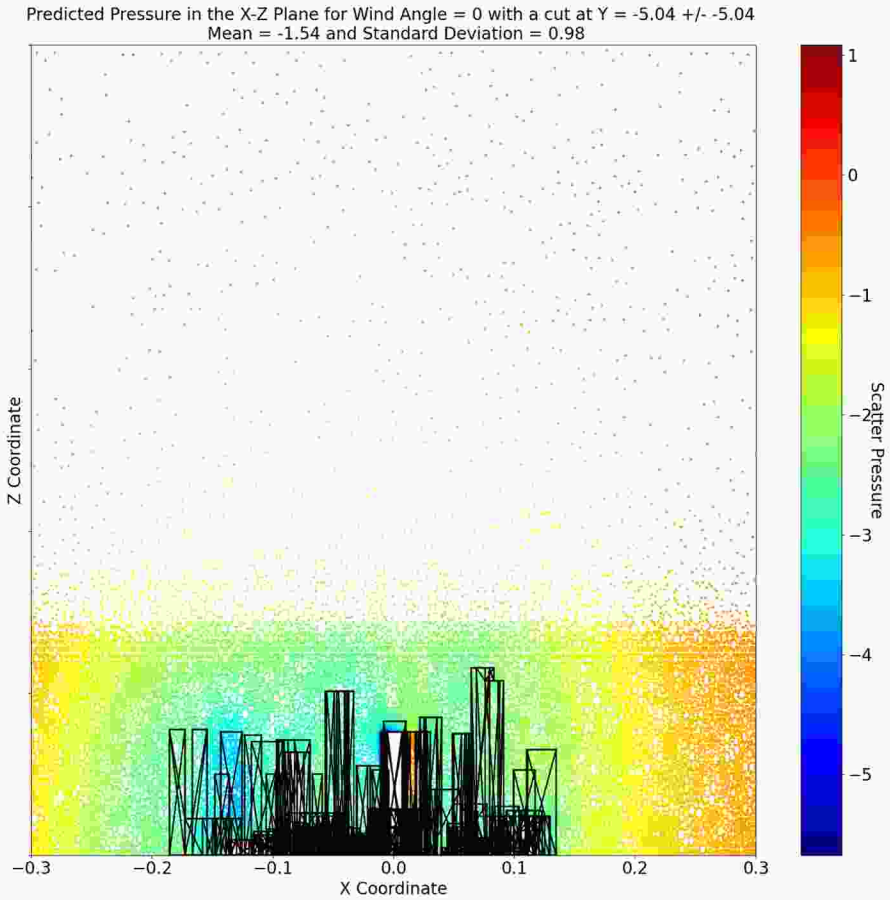
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



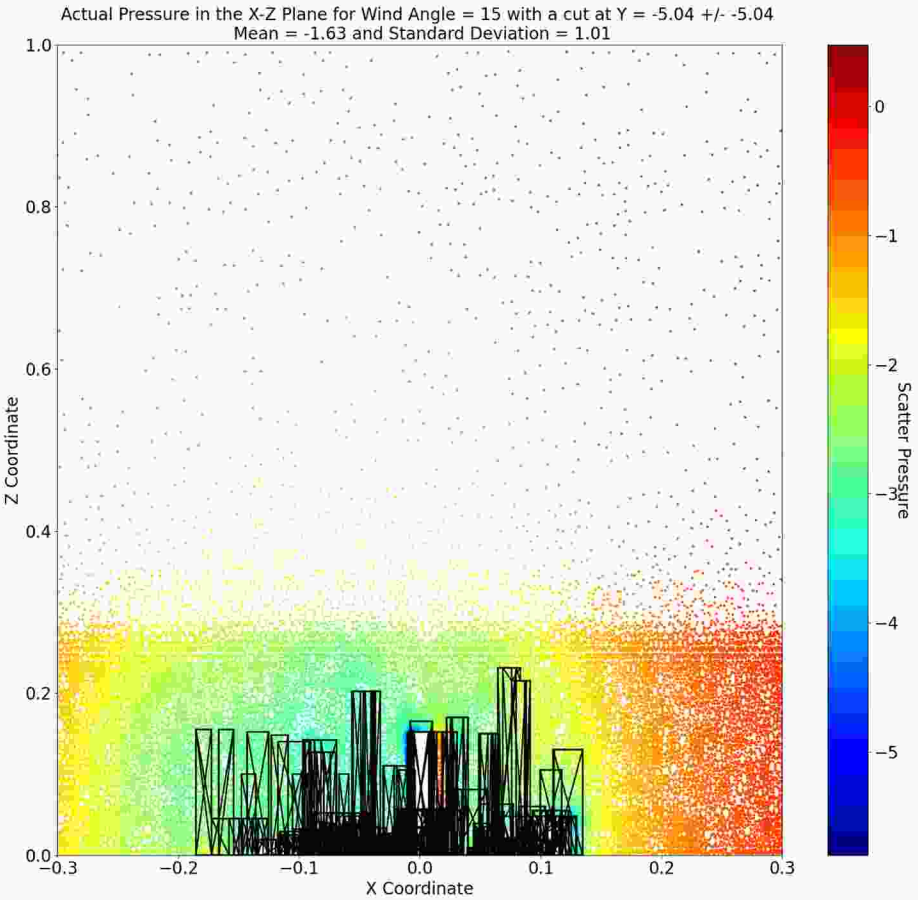


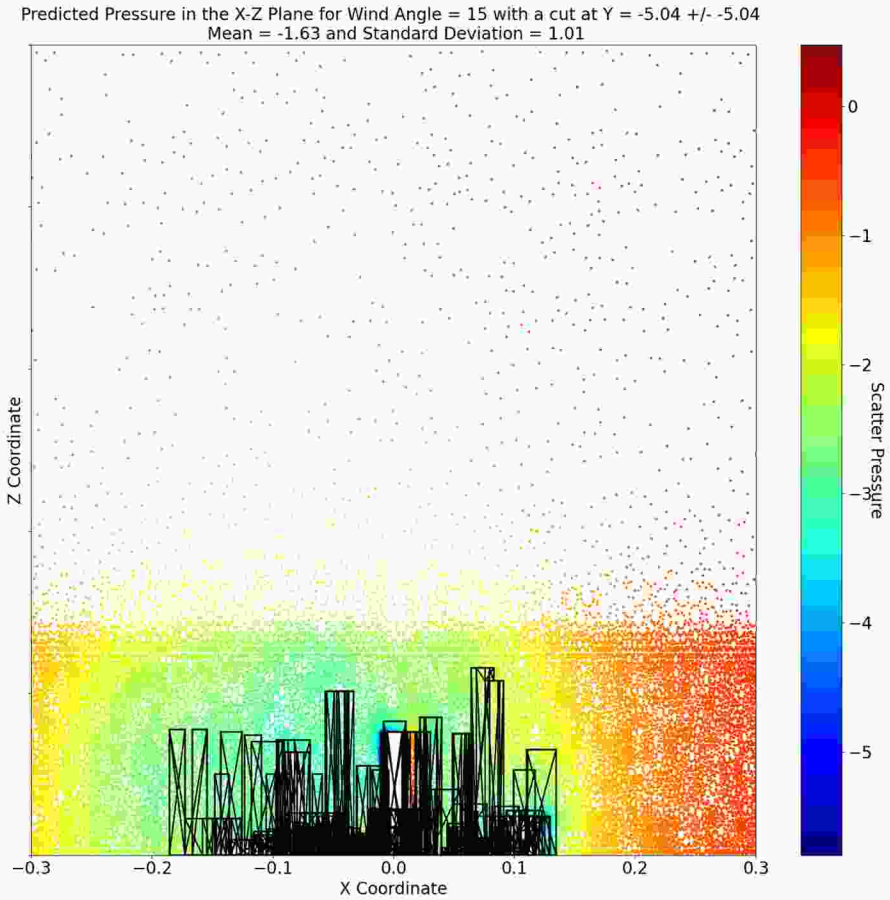
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



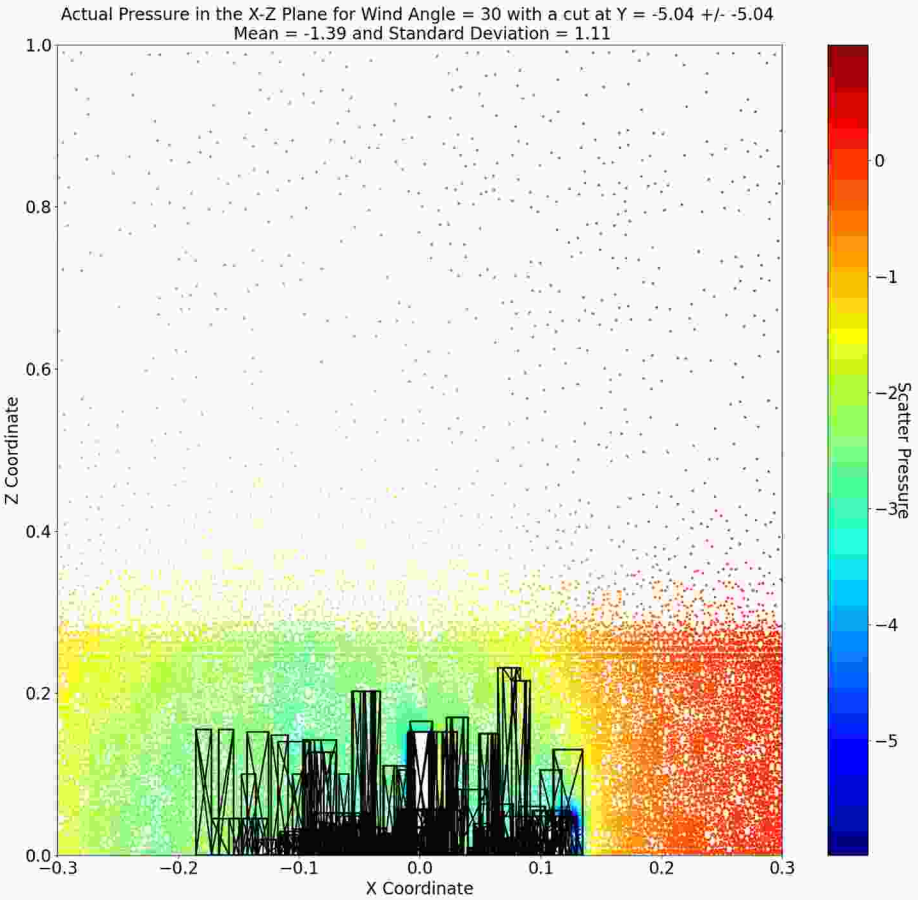


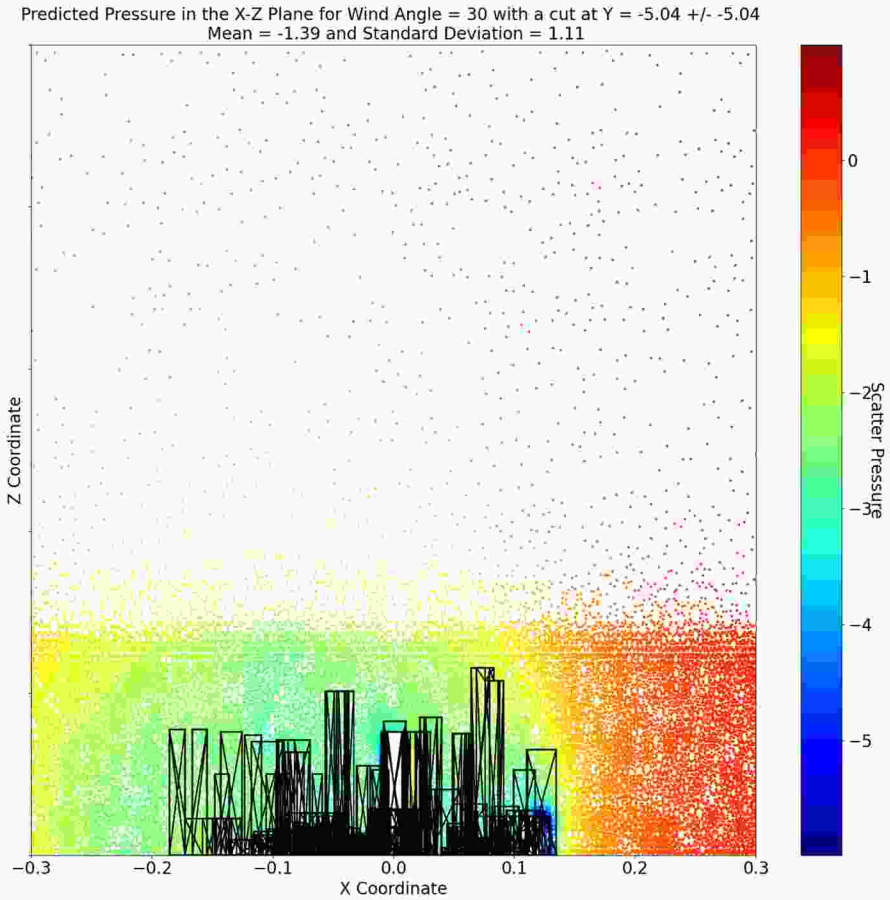
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



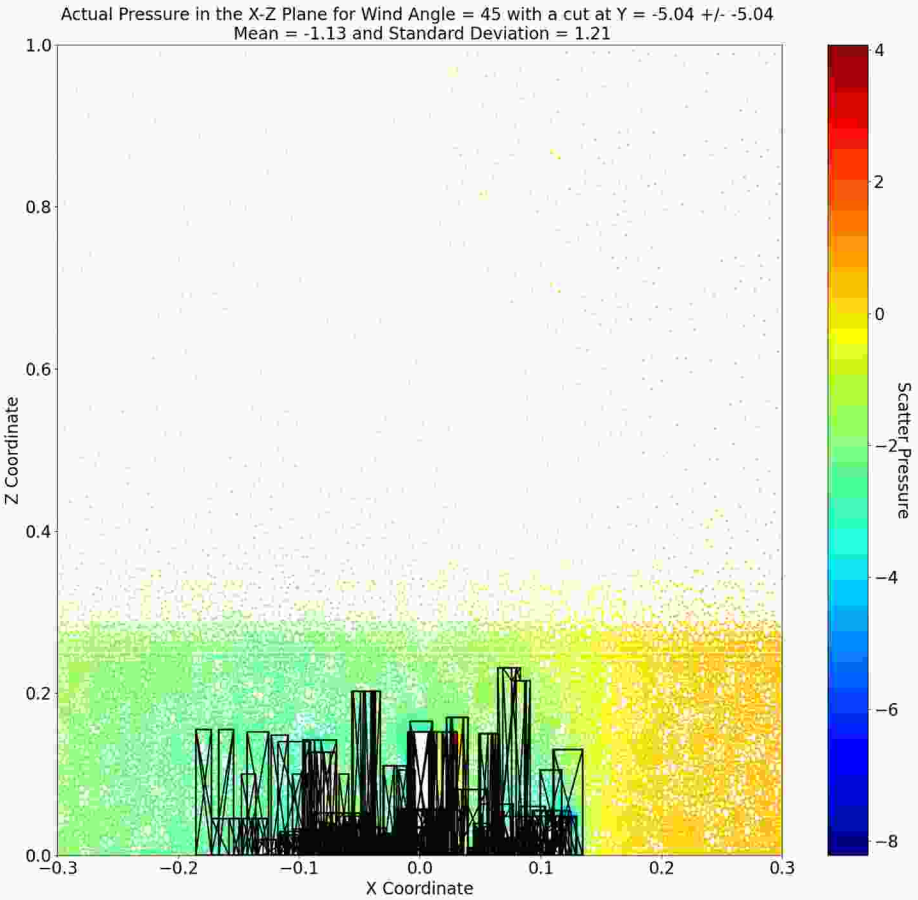


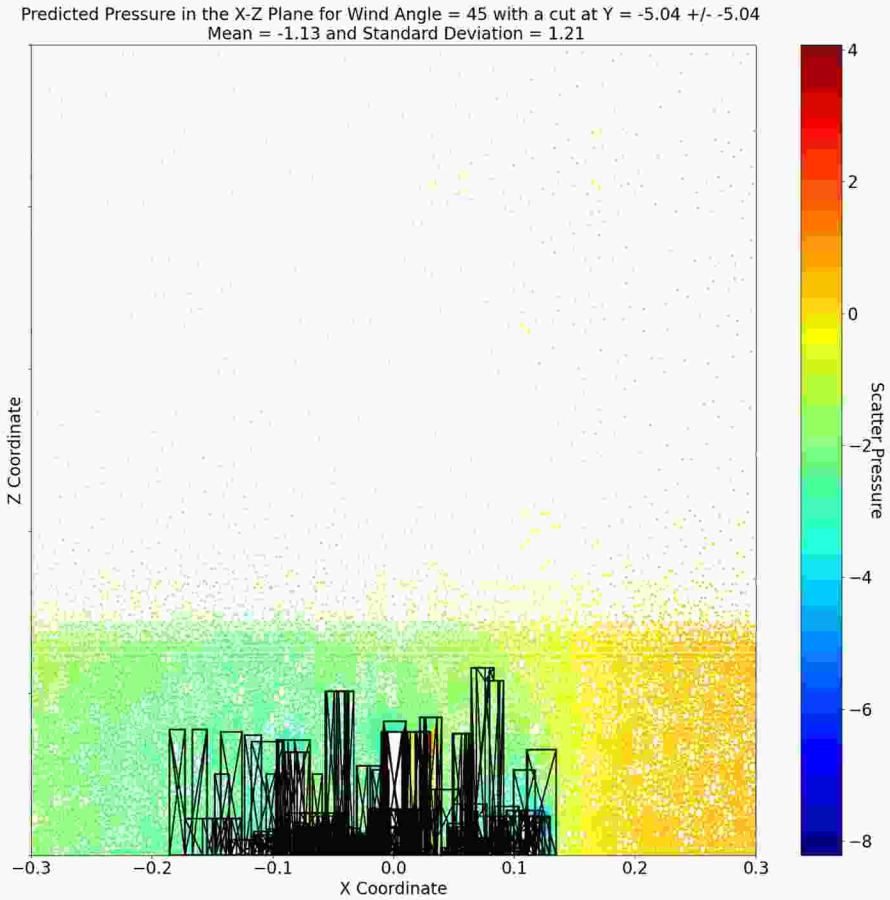
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



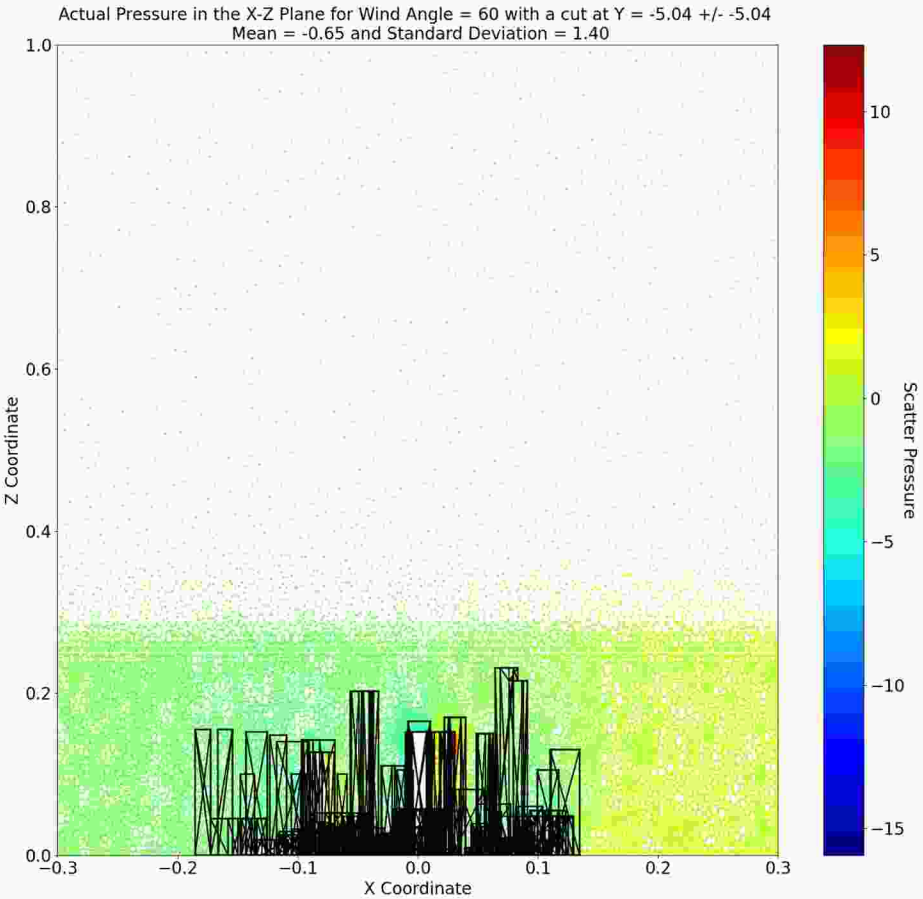


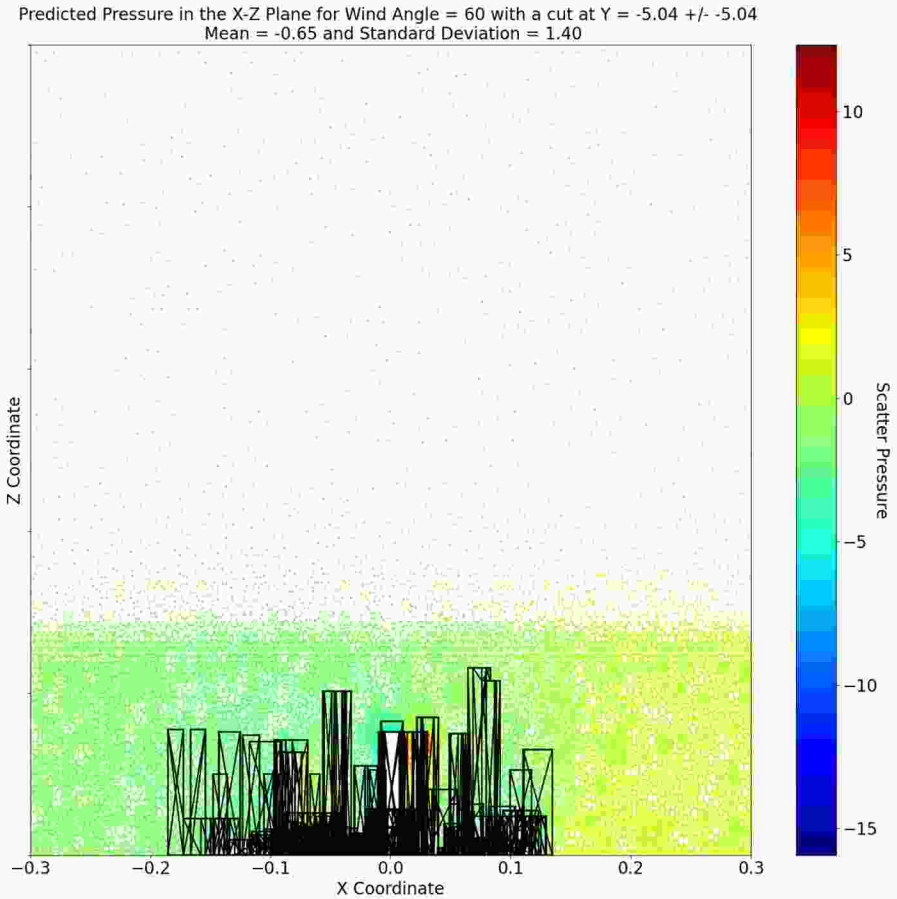
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



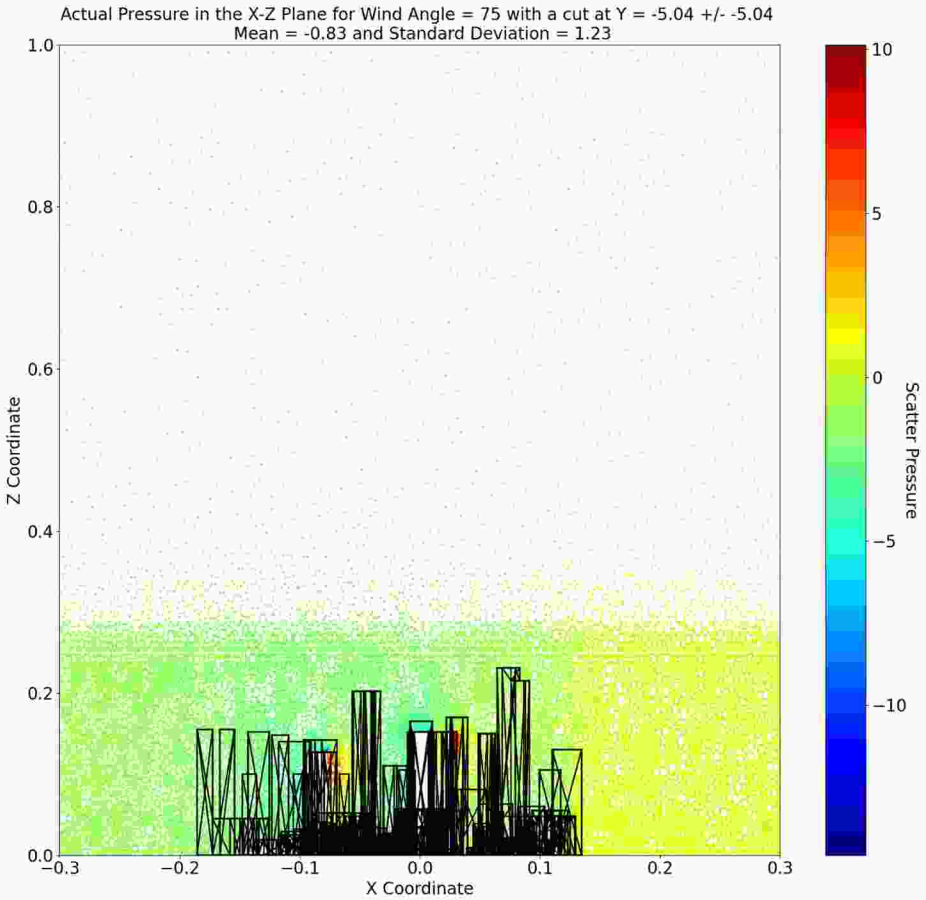


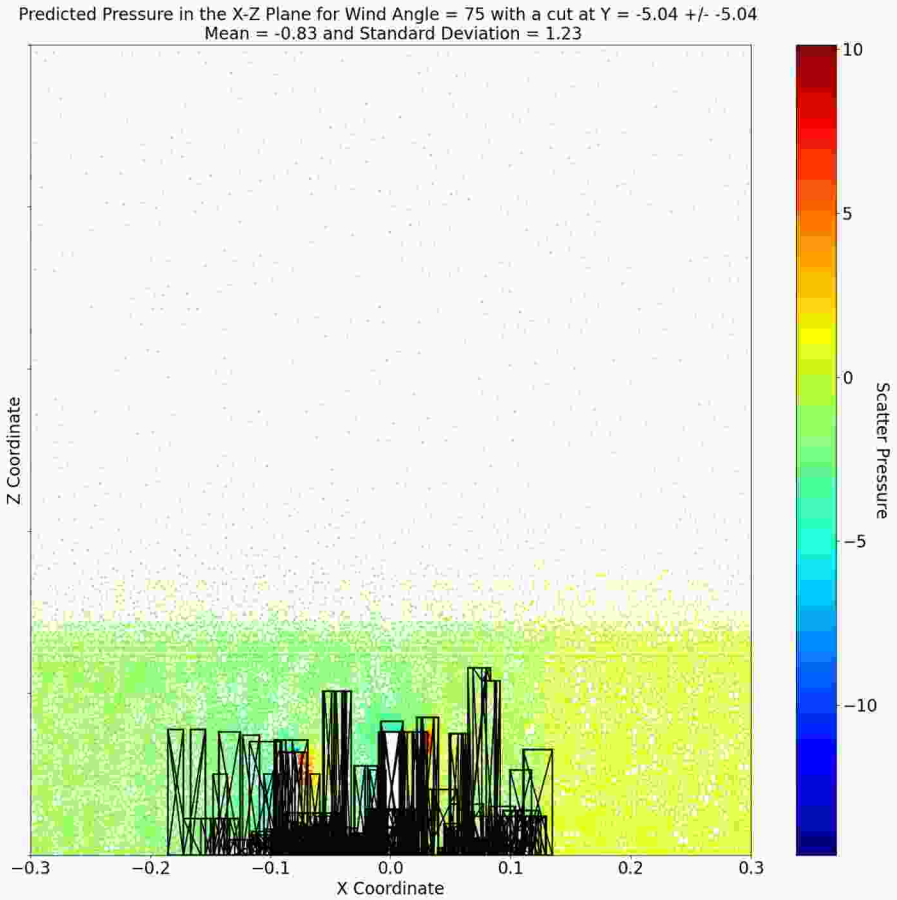
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



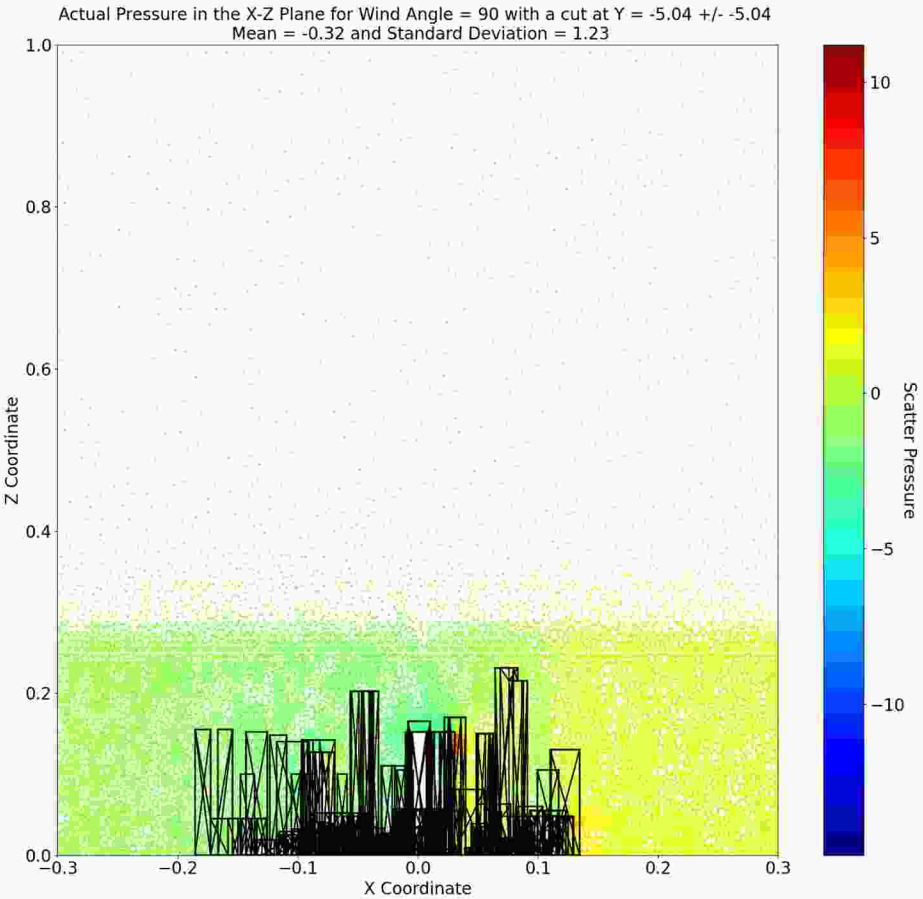


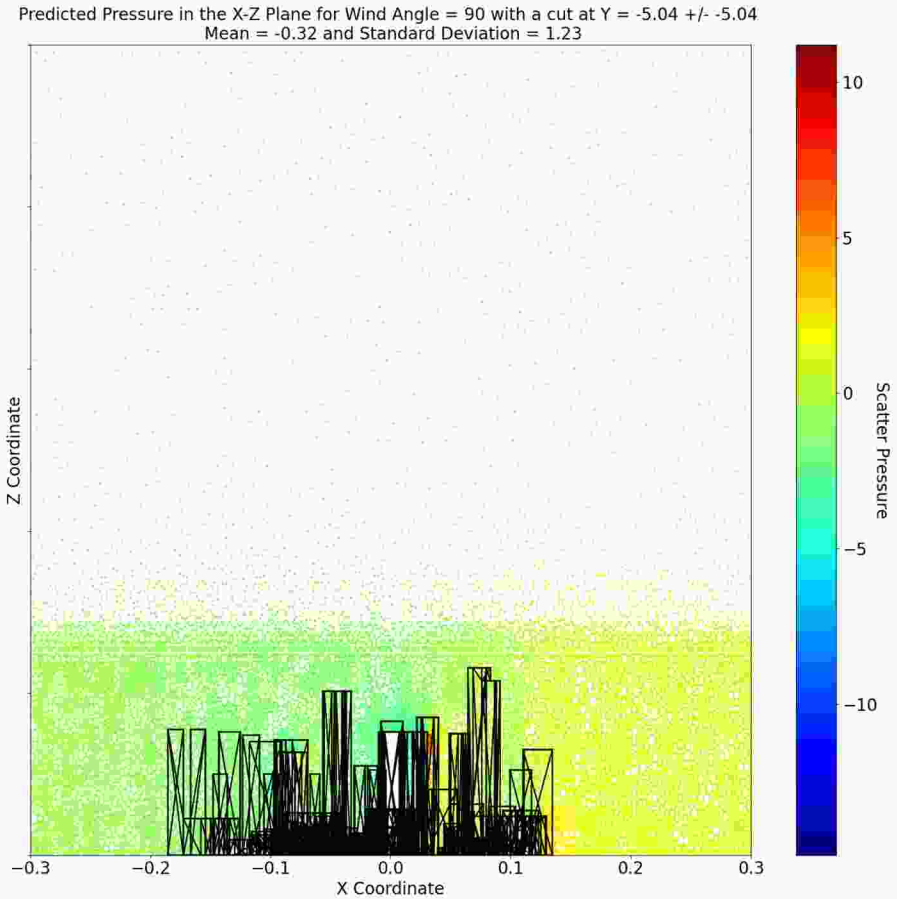
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



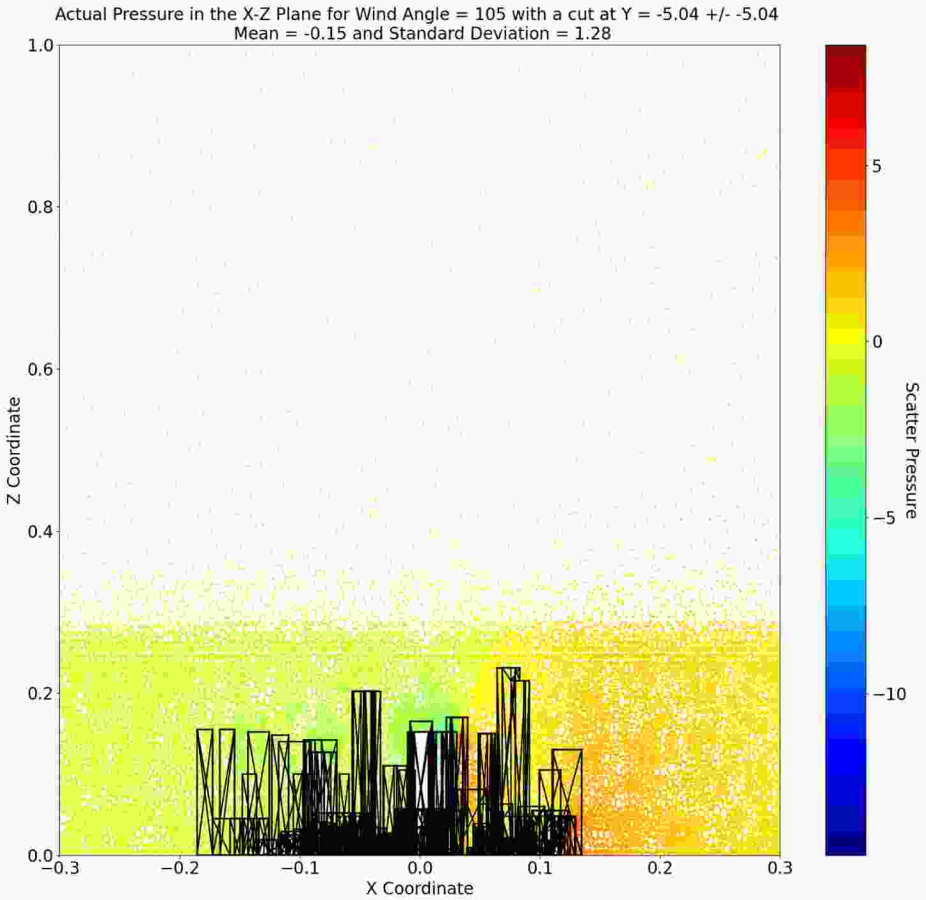


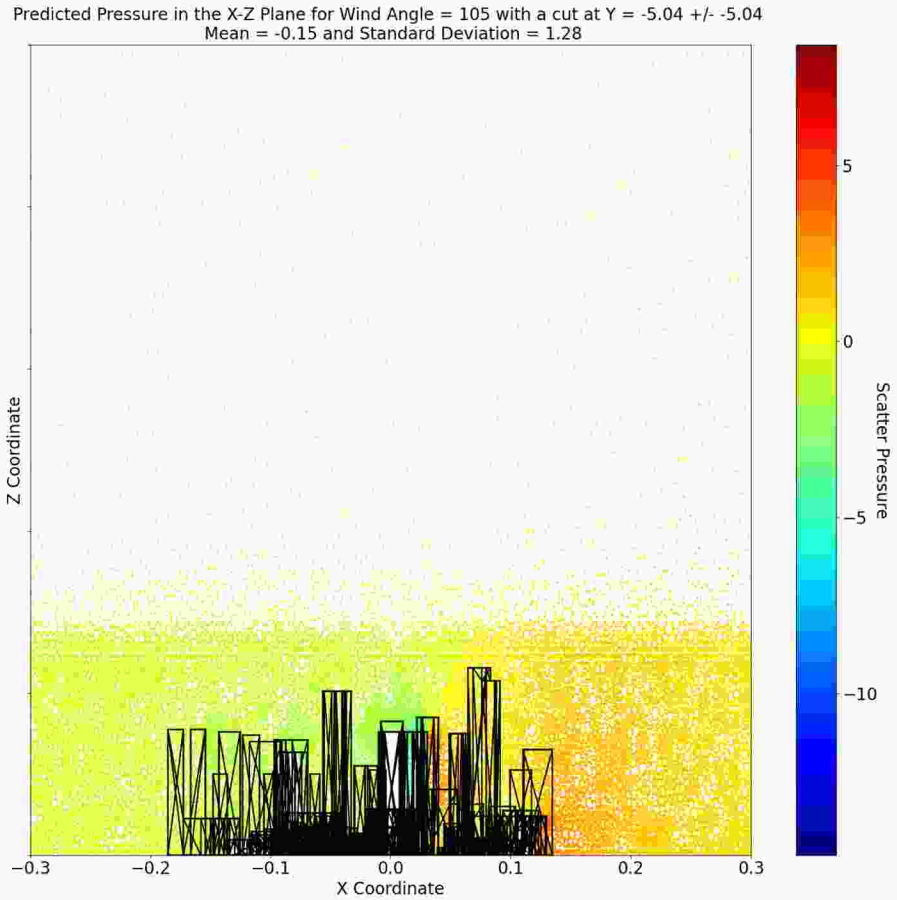
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



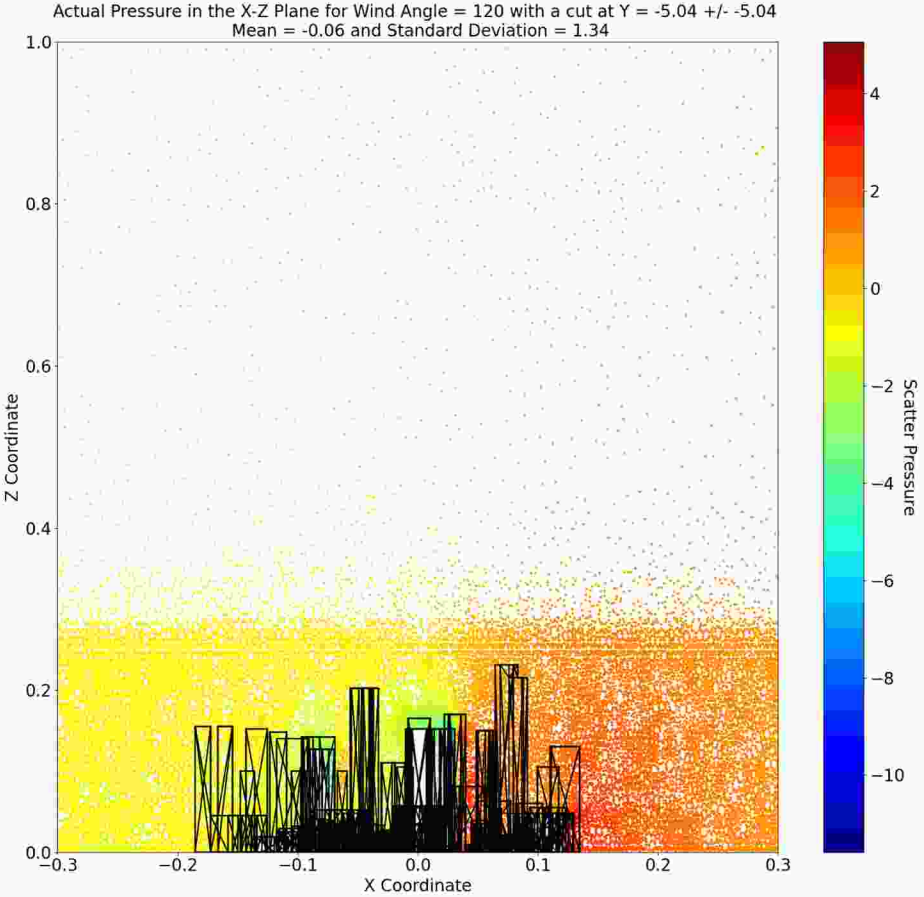


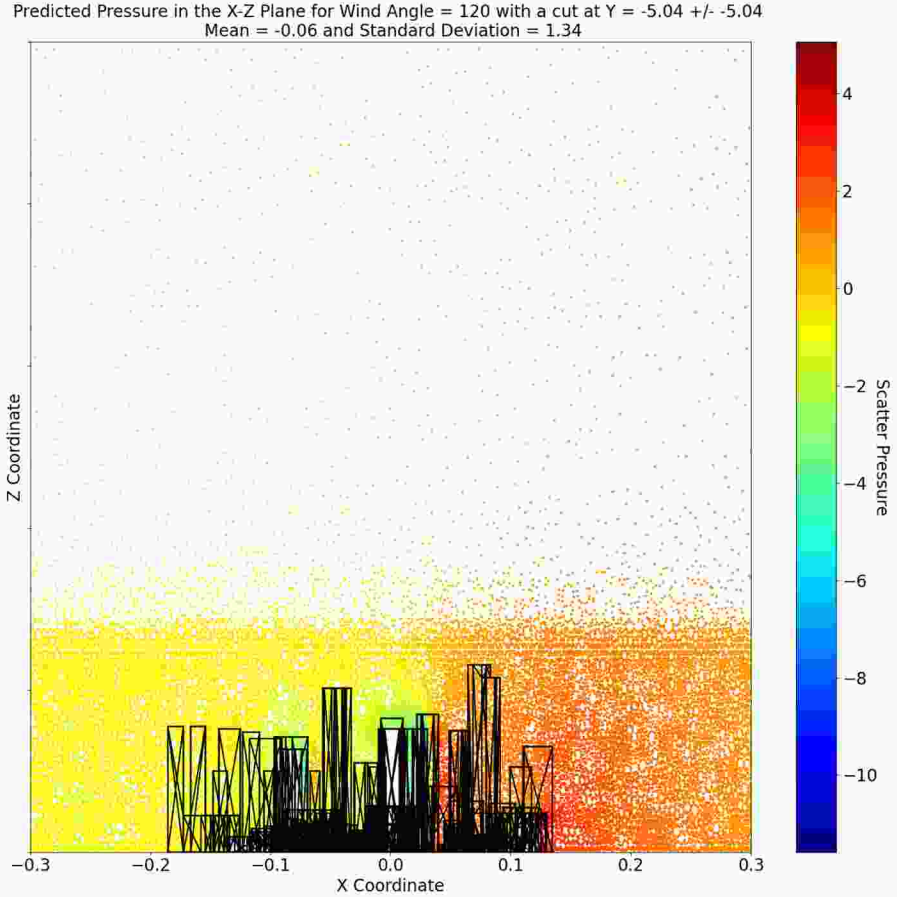
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



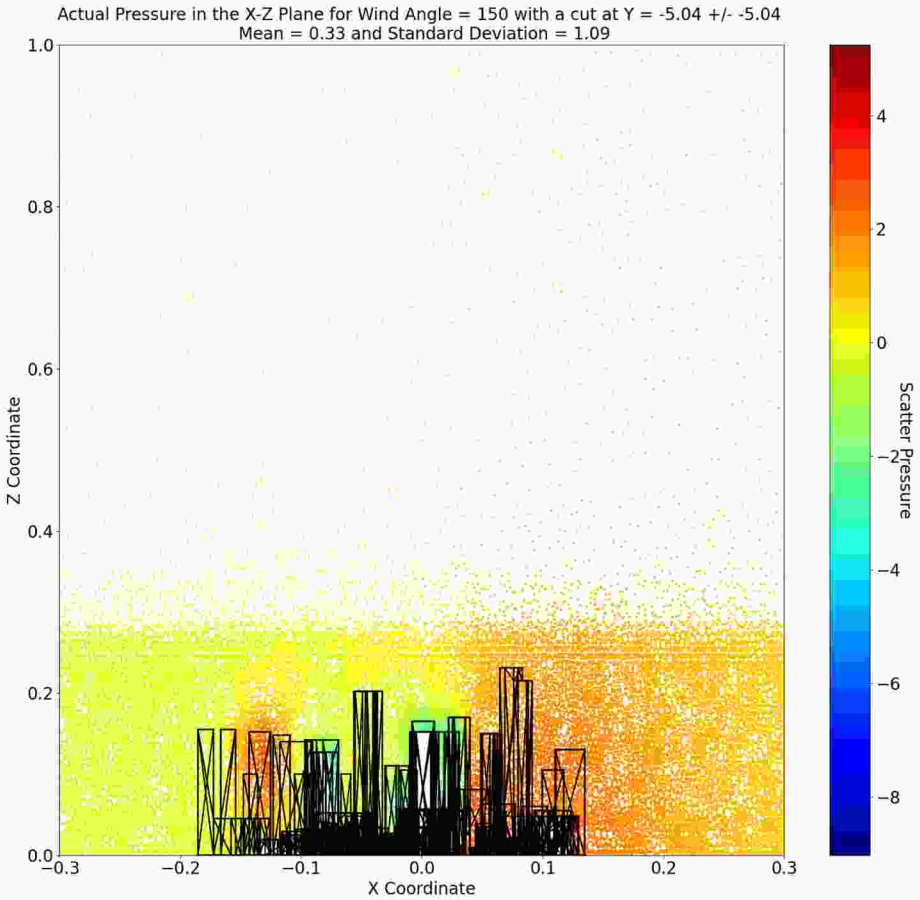


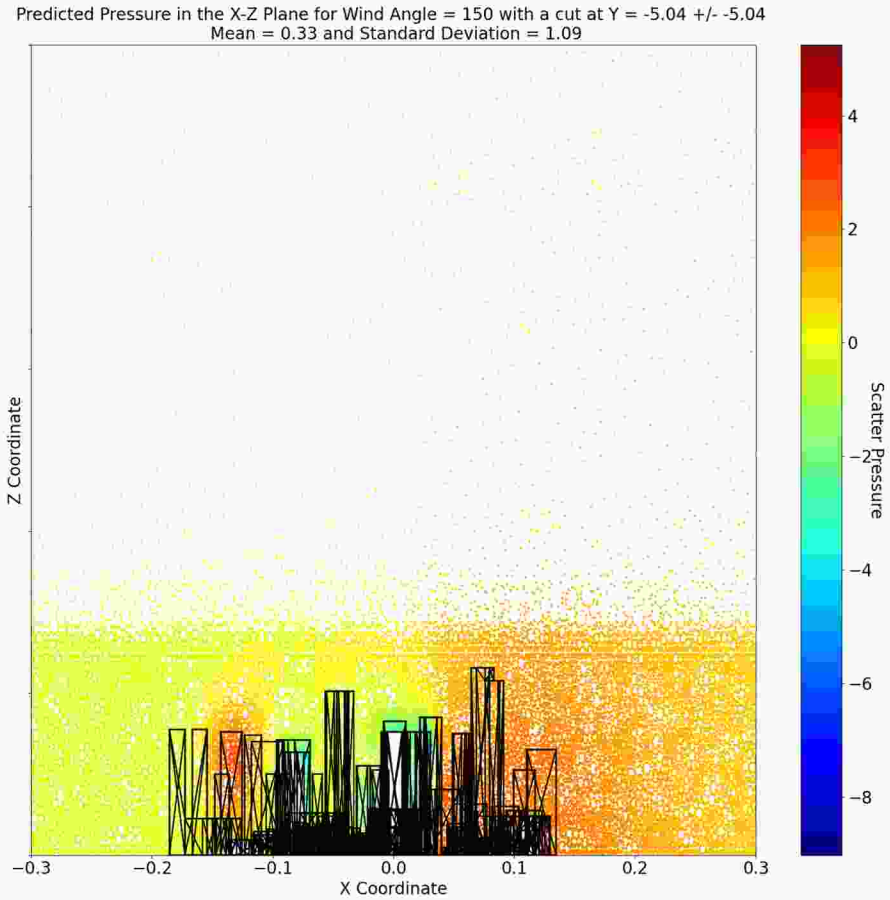
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



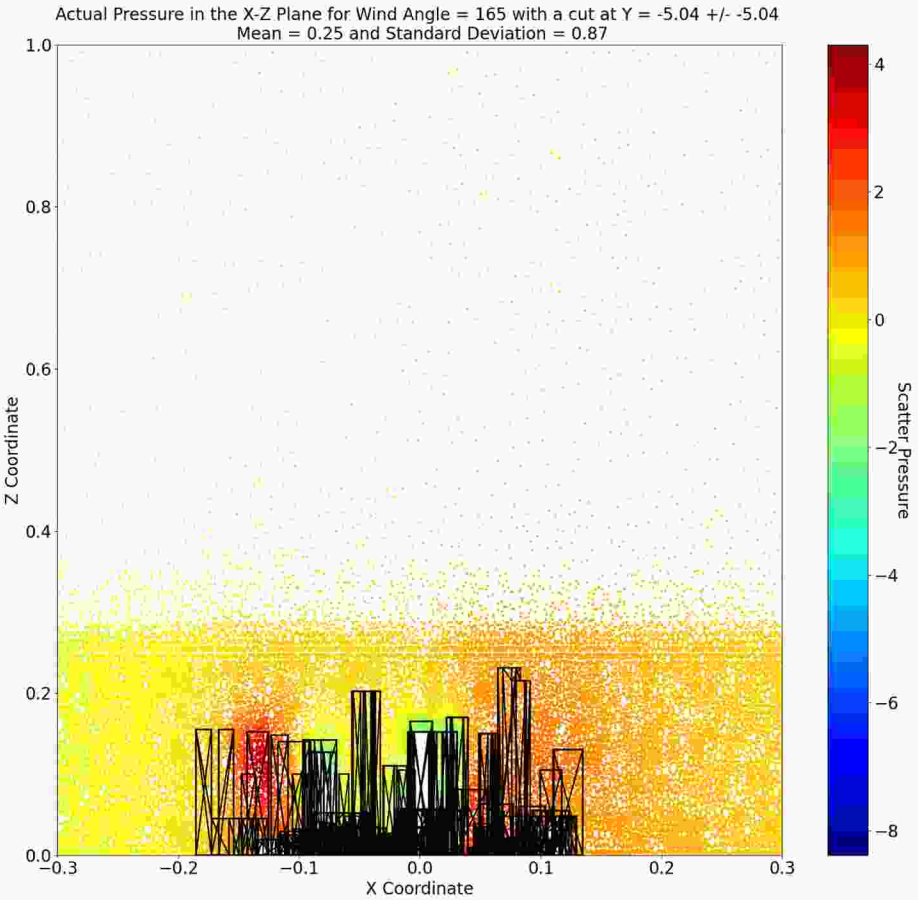


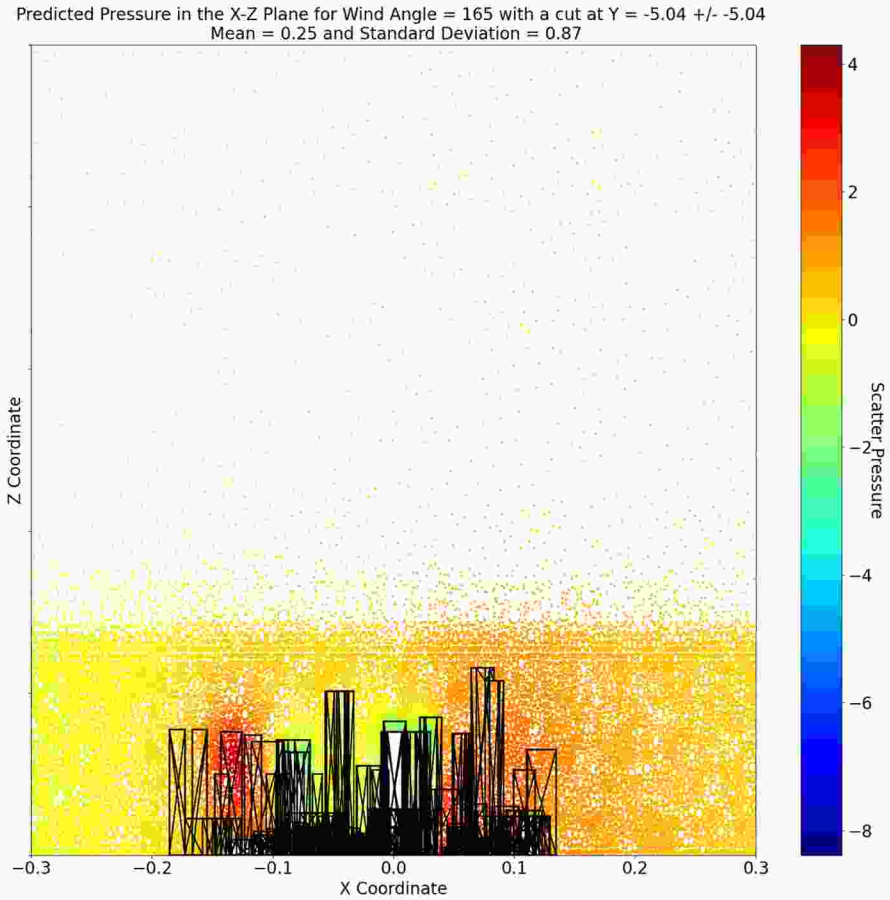
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



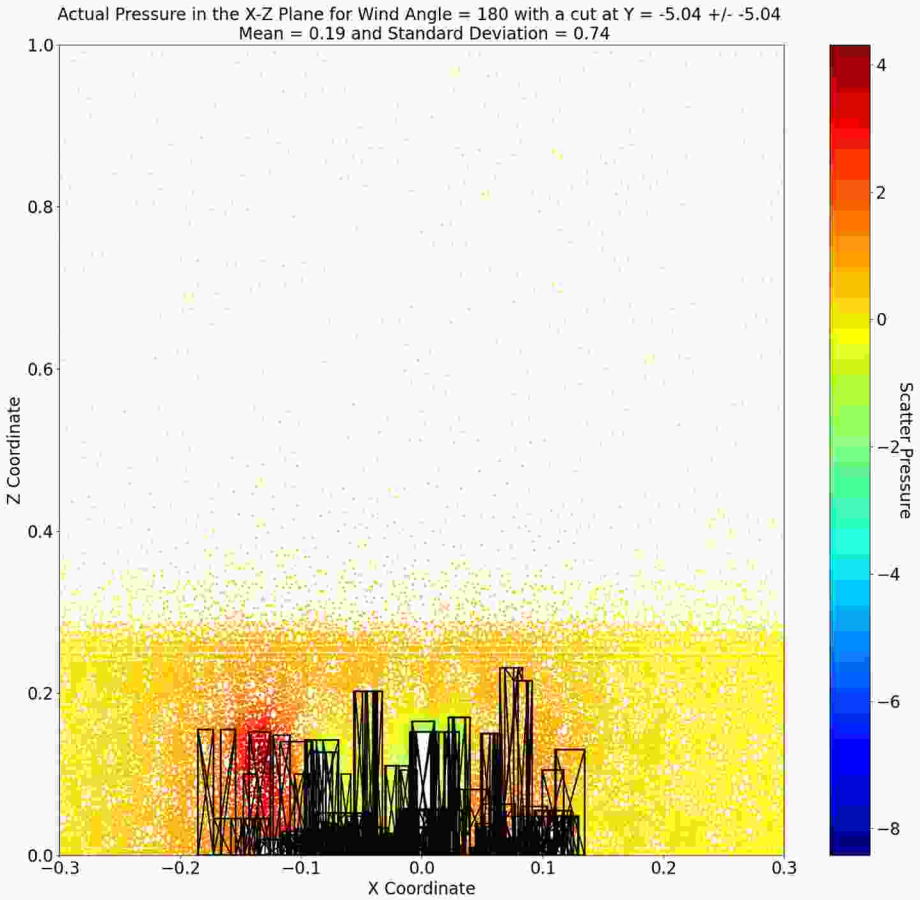


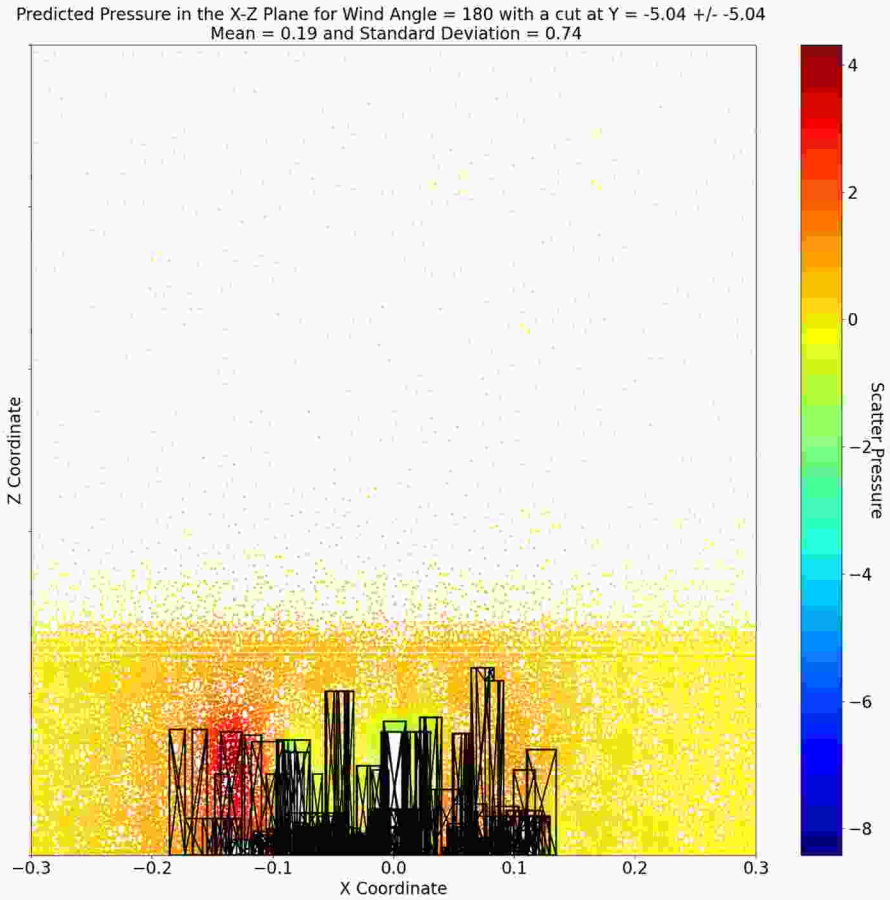
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

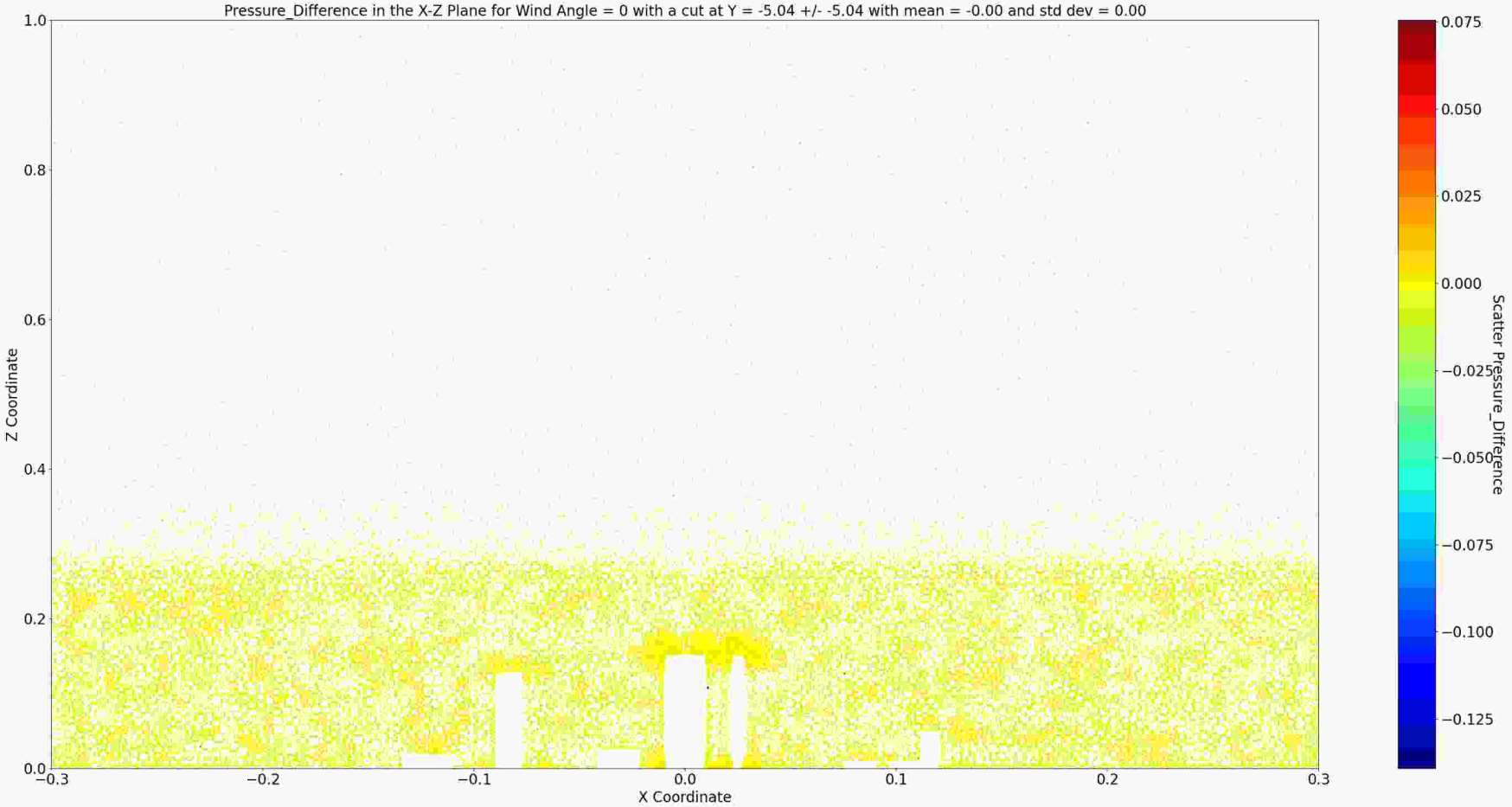


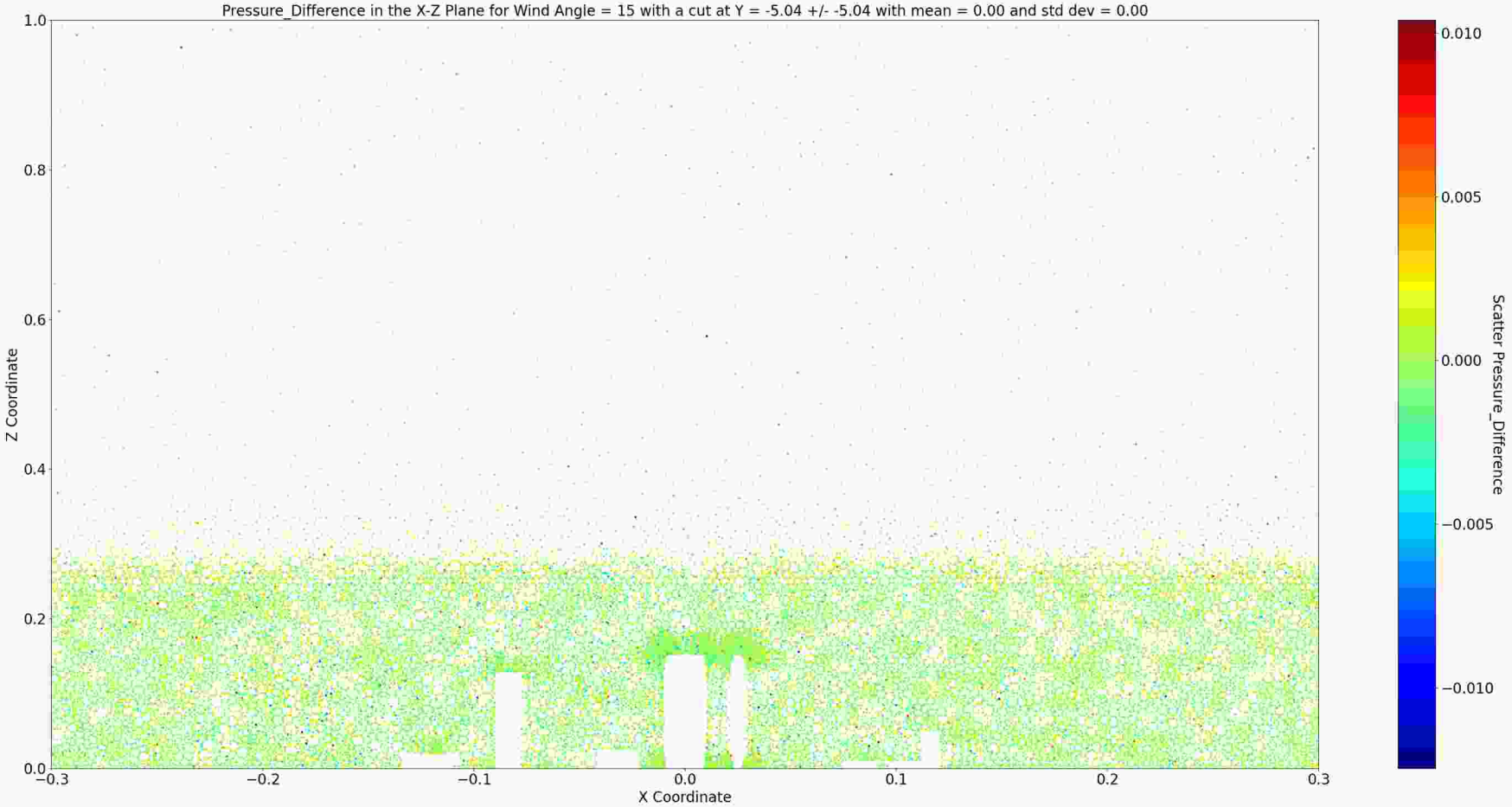


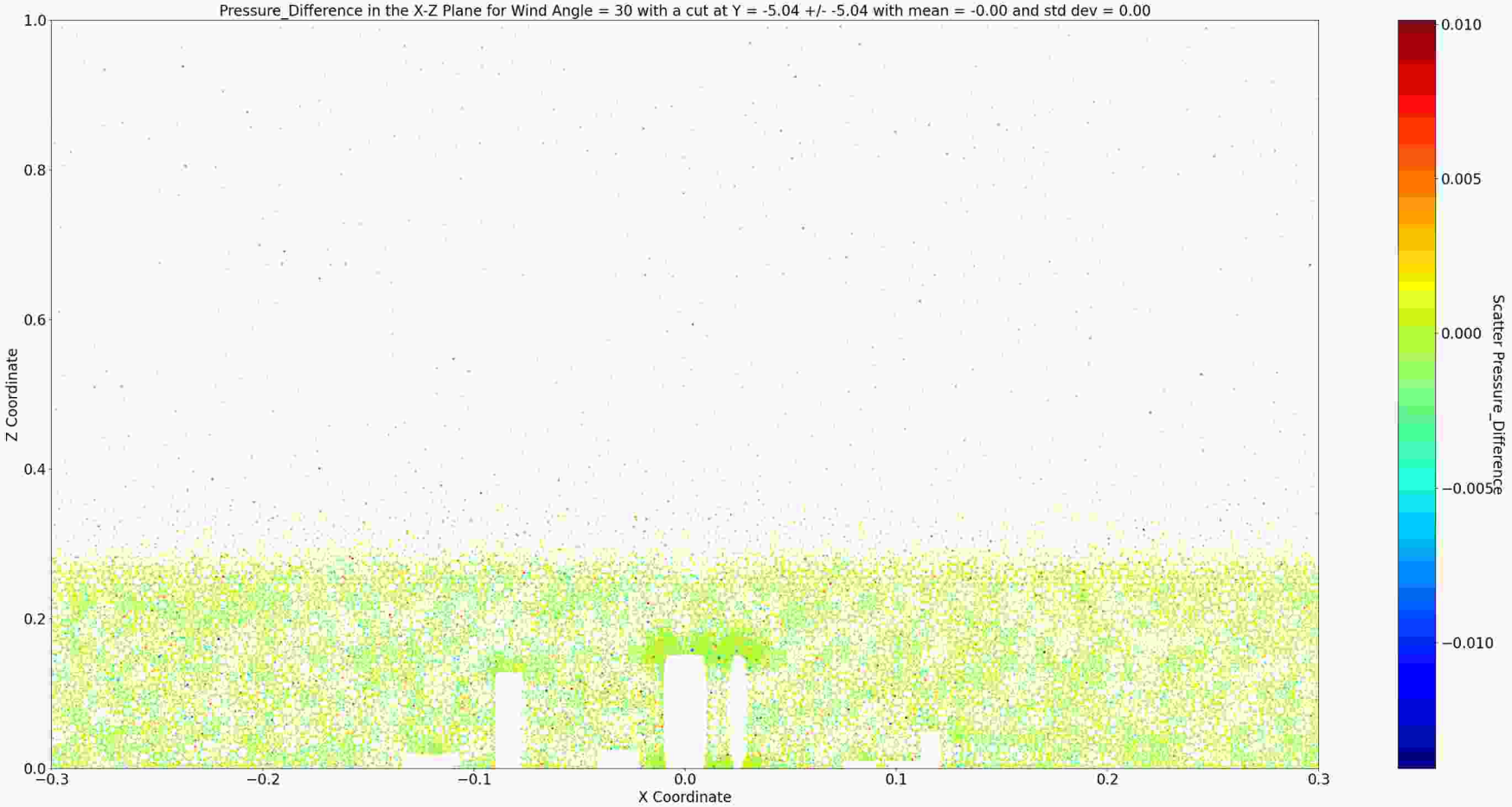
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

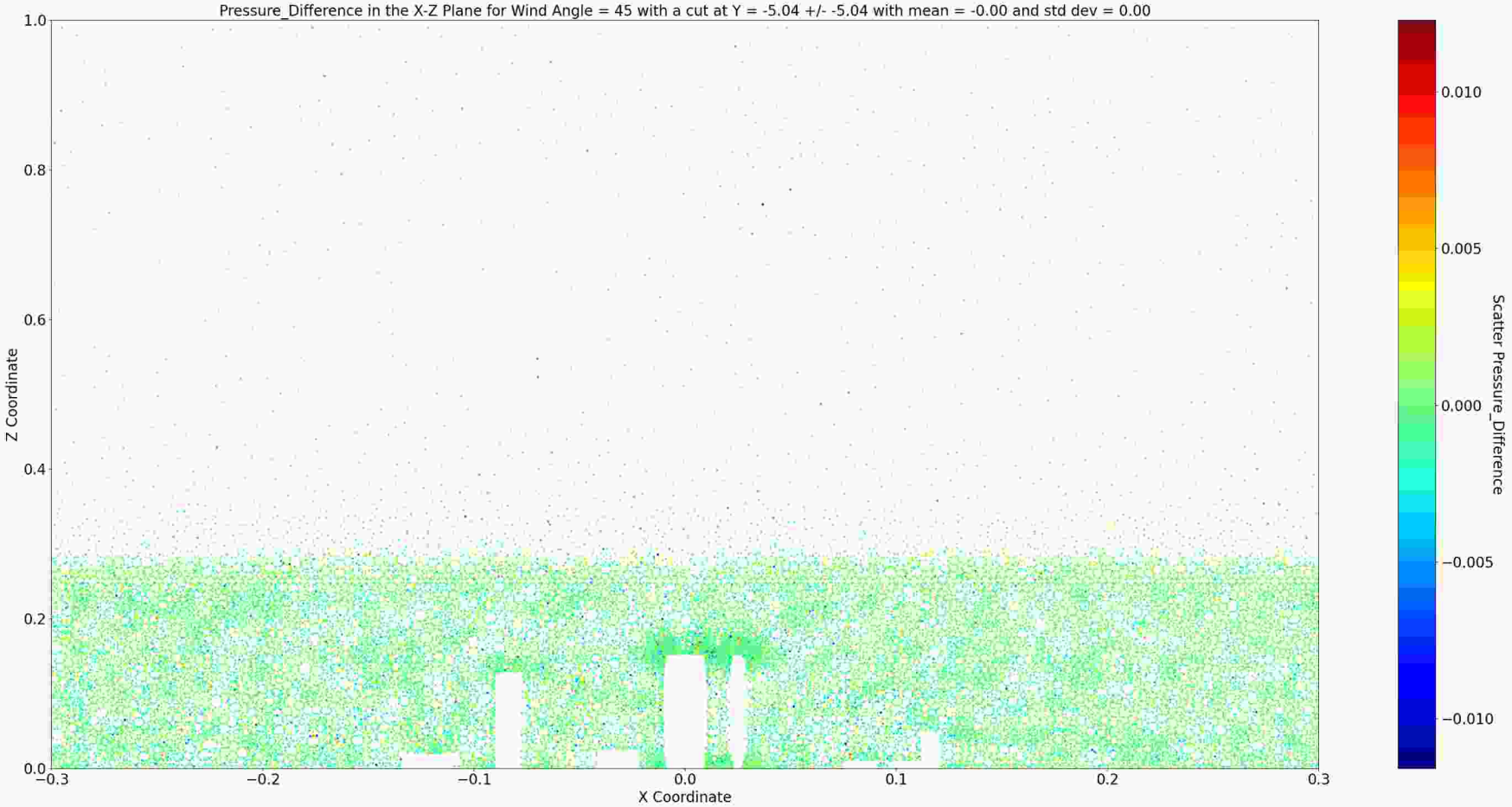


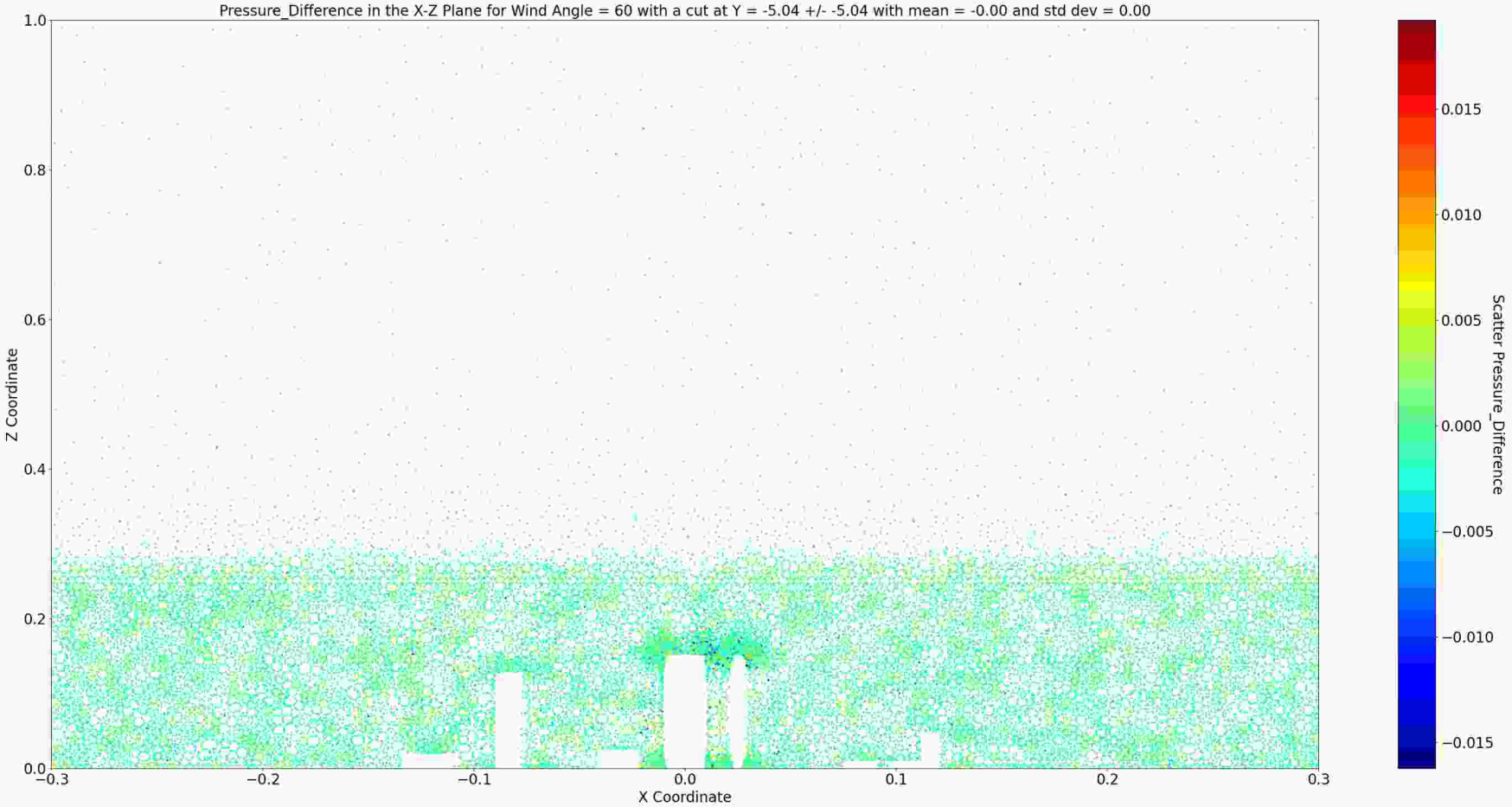


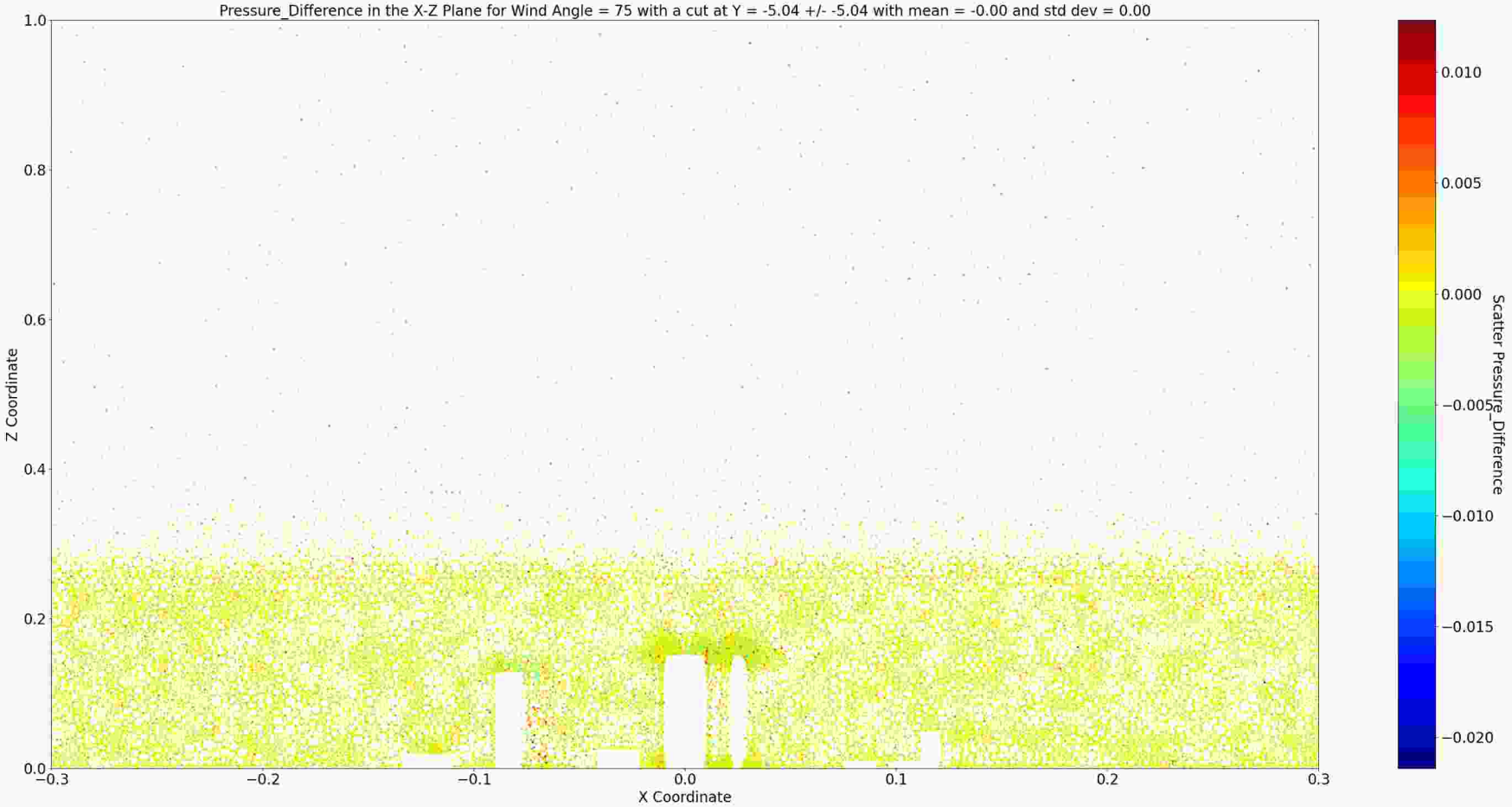

Pressure_Difference in the X-Z Plane for Wind Angle = 0 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.075
0.050
0.025
0.000
−0.025
−0.050
−0.075
−0.100
−0.125

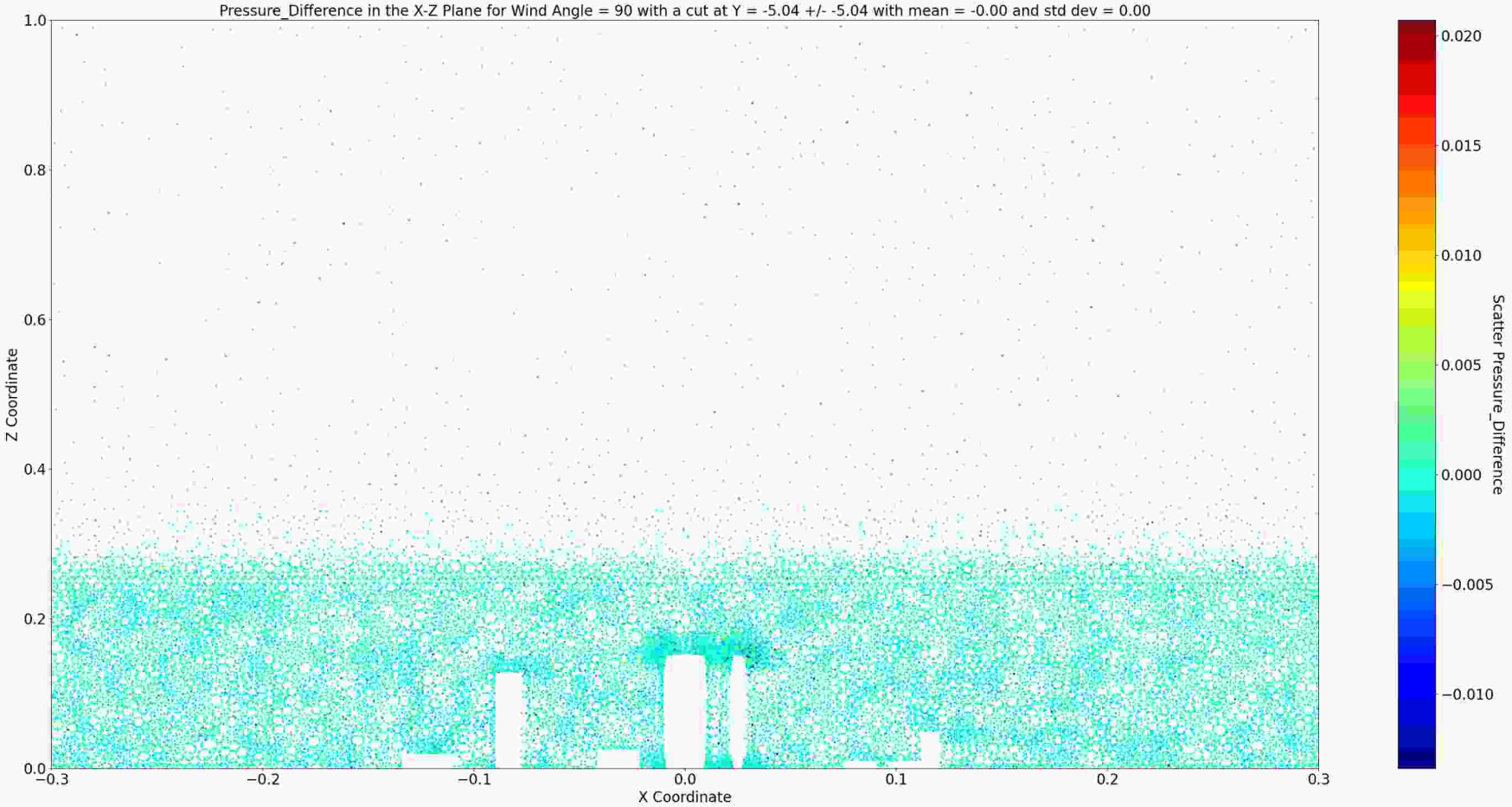

Pressure_Difference in the X-Z Plane for Wind Angle = 15 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010

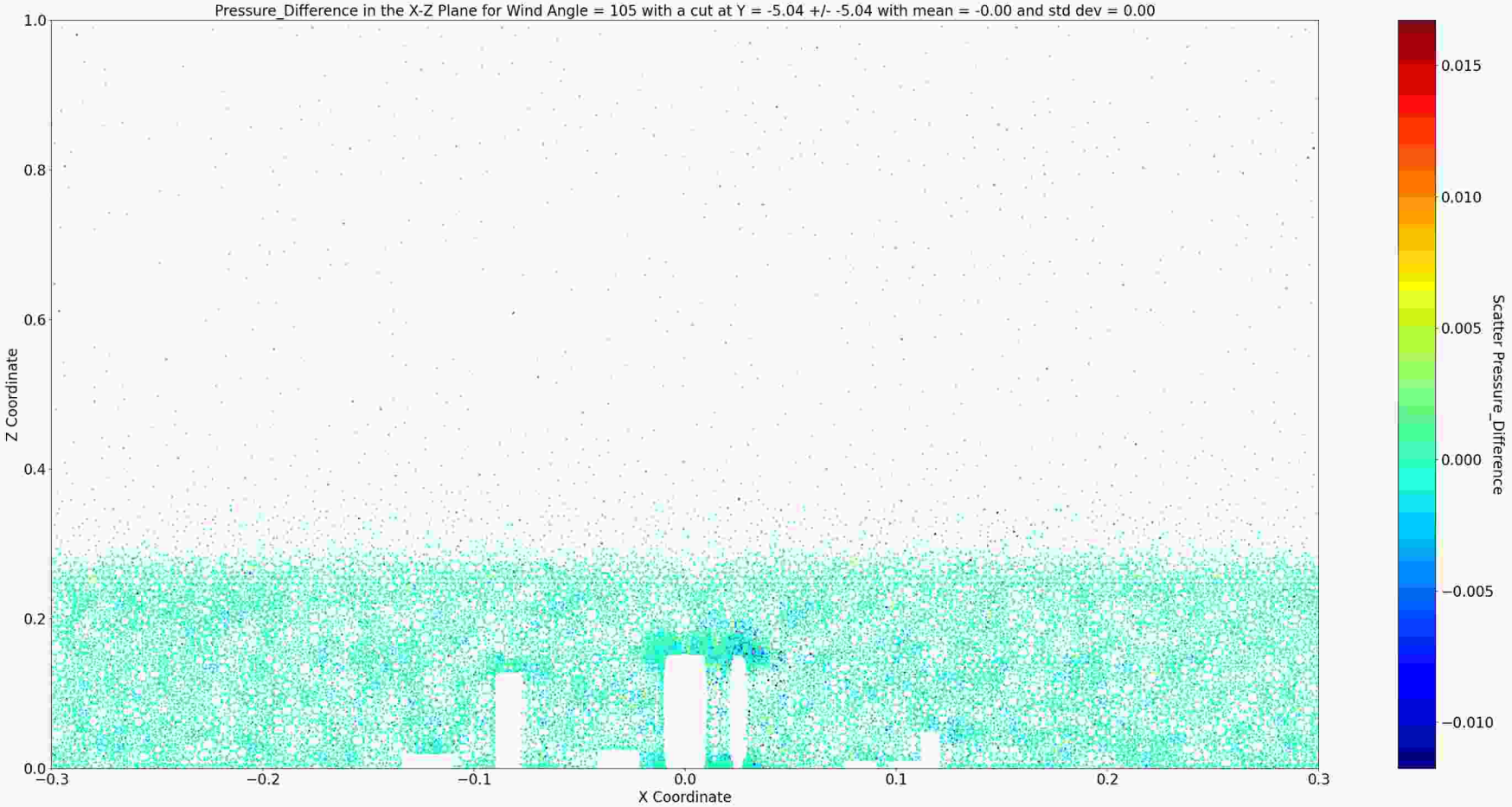

Pressure_Difference in the X-Z Plane for Wind Angle = 30 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010

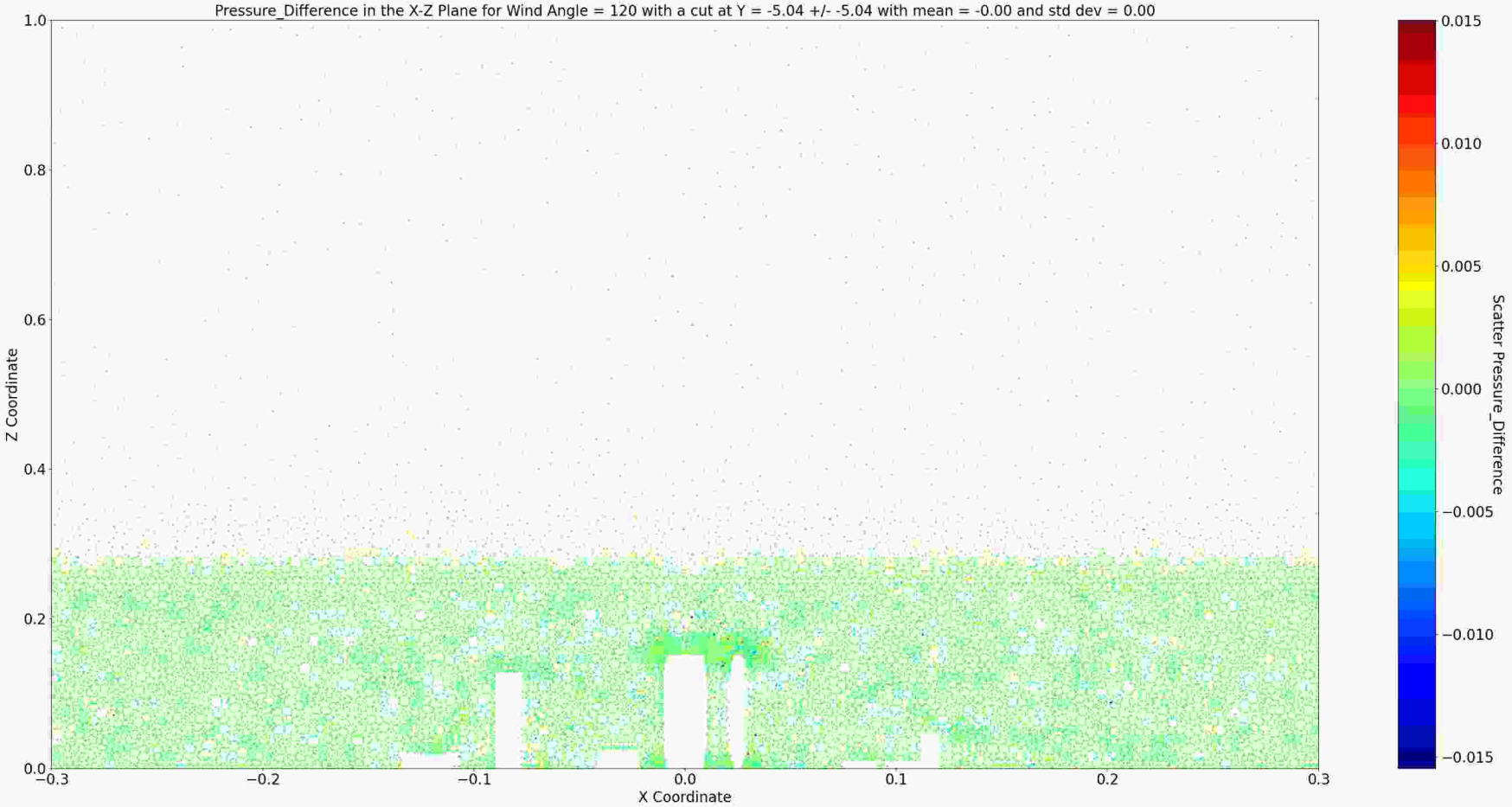

Pressure_Difference in the X-Z Plane for Wind Angle = 45 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010

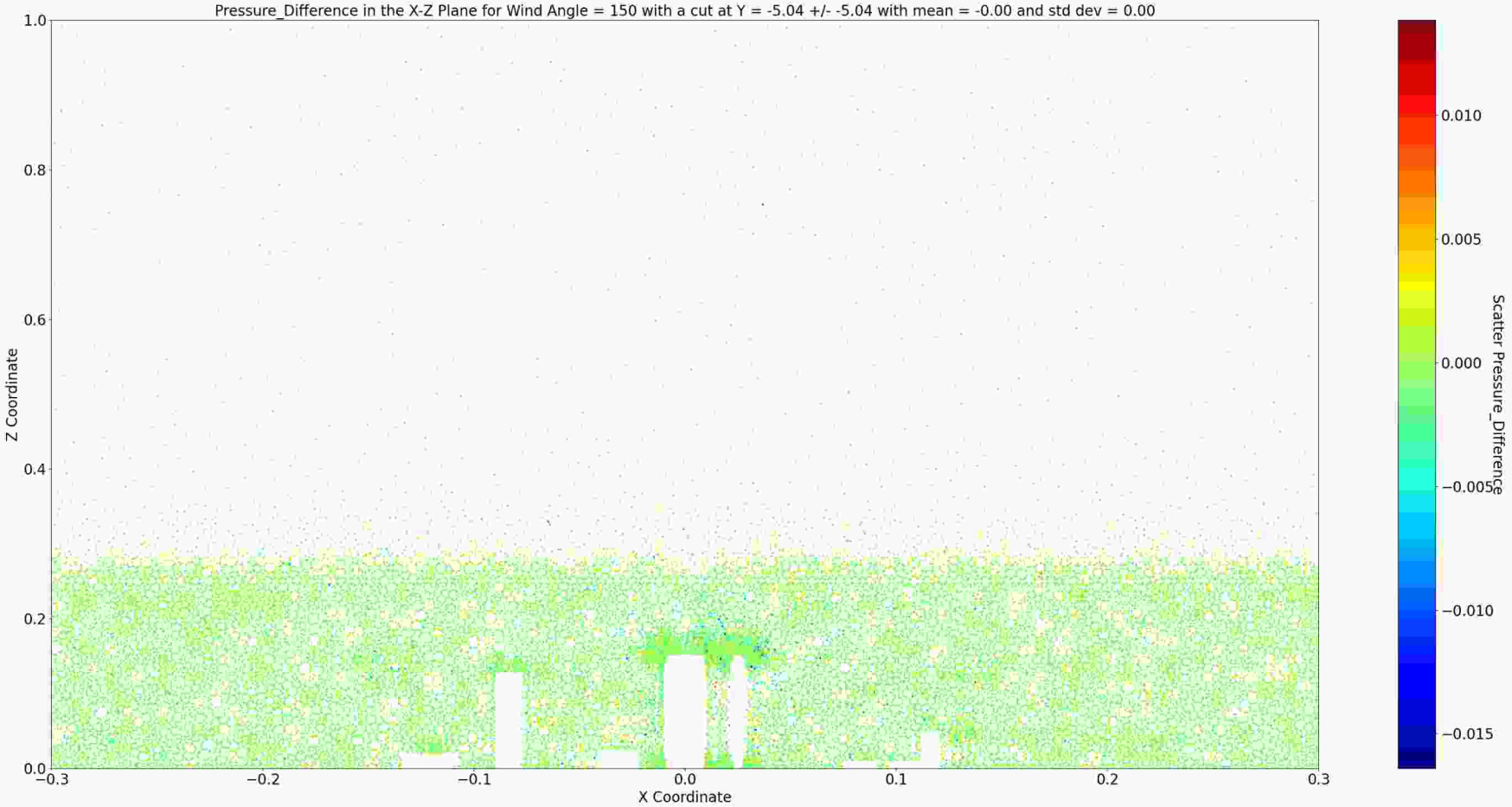

Pressure_Difference in the X-Z Plane for Wind Angle = 60 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015

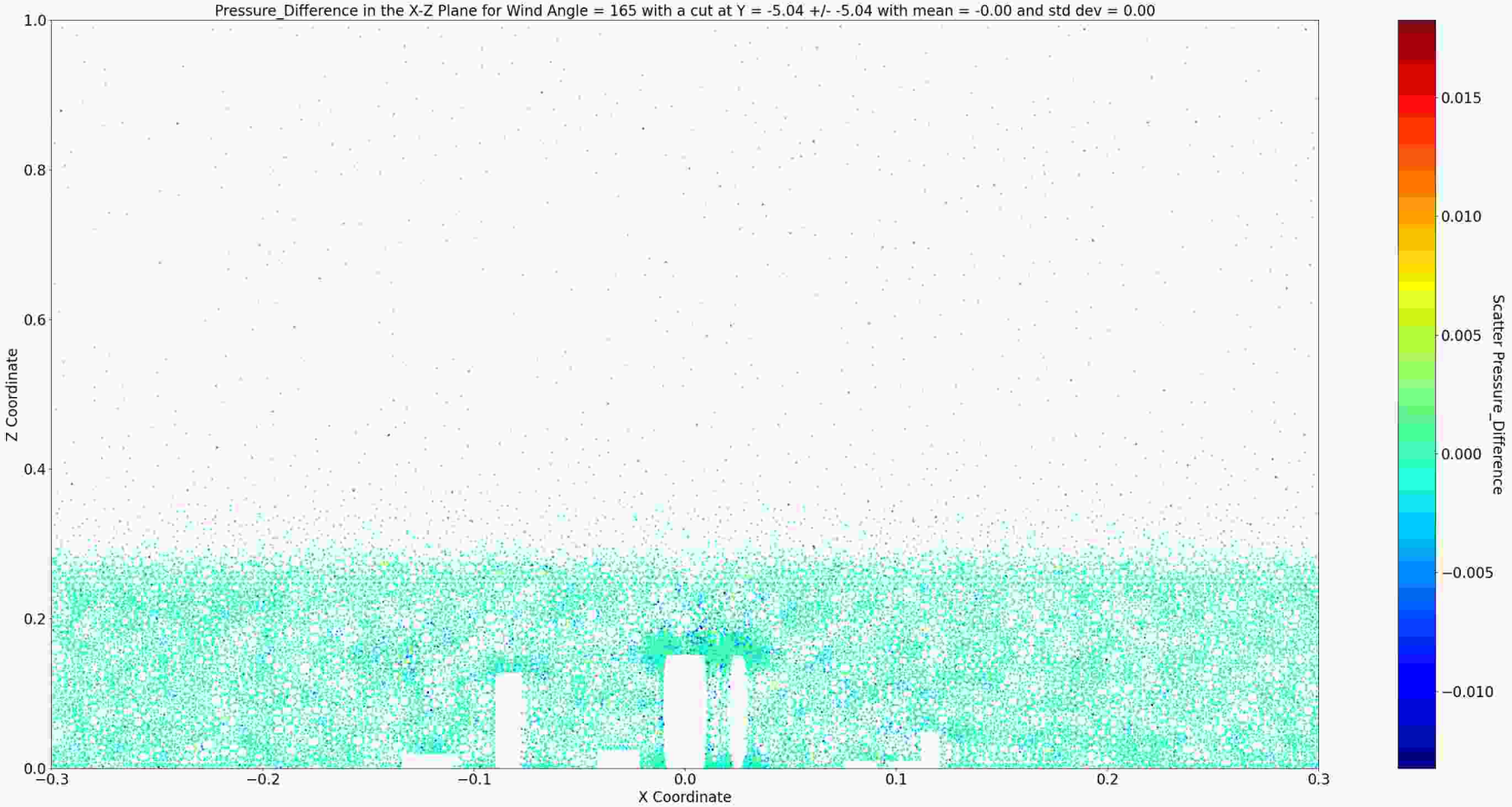

Pressure_Difference in the X-Z Plane for Wind Angle = 75 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010
−0.015
−0.020

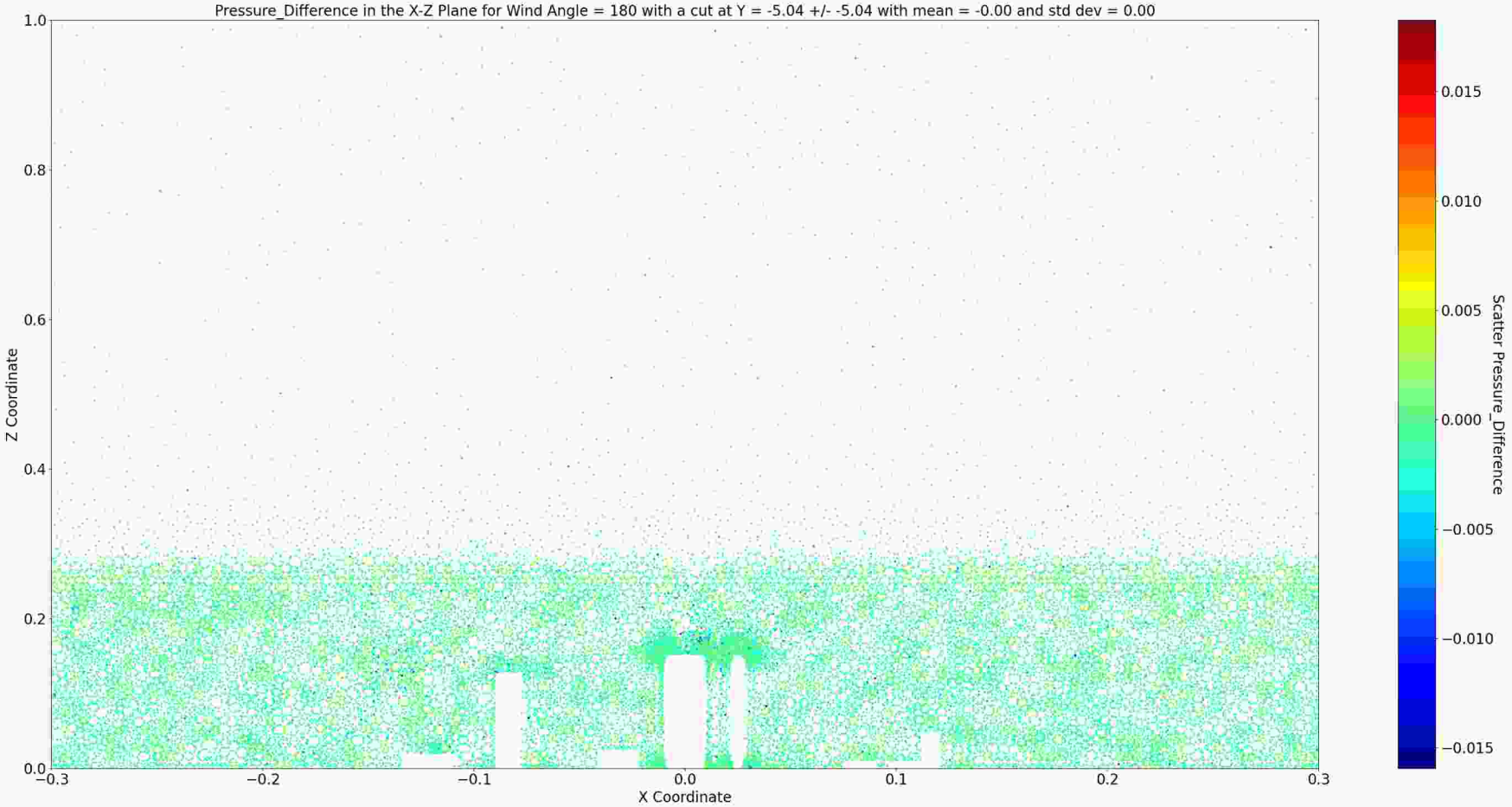

Pressure_Difference in the X-Z Plane for Wind Angle = 90 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010


Pressure_Difference in the X-Z Plane for Wind Angle = 105 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.015
0.010
0.005
0.000
−0.005
−0.010

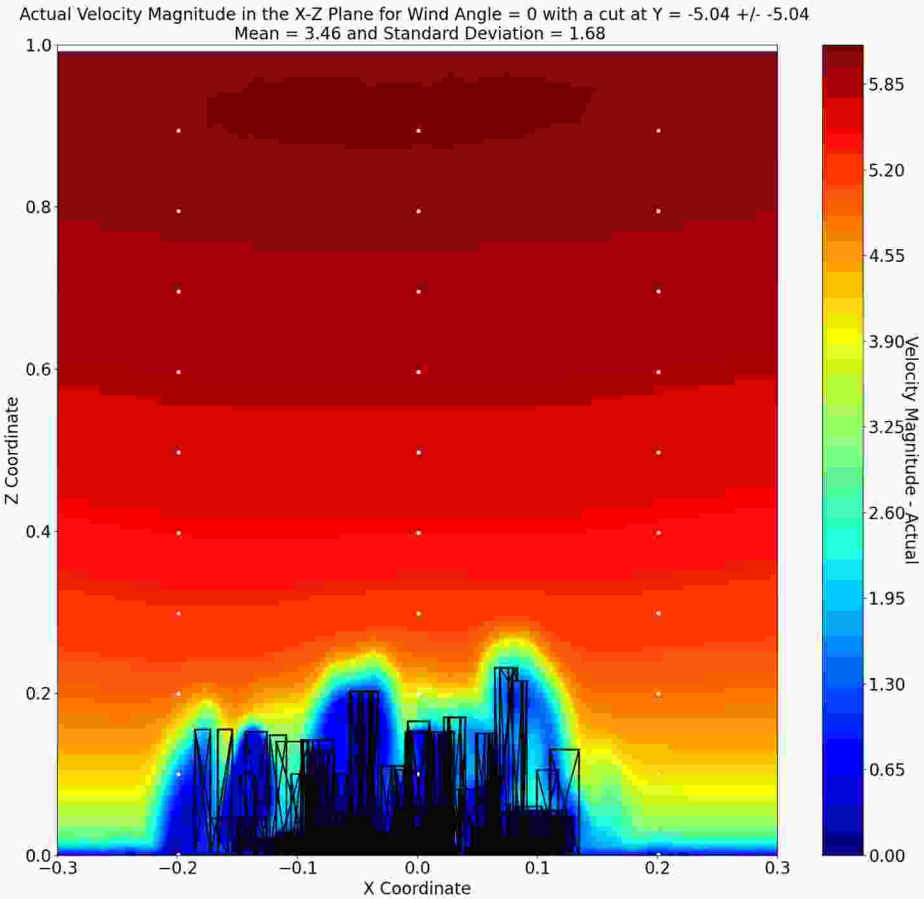

Pressure_Difference in the X-Z Plane for Wind Angle = 120 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015

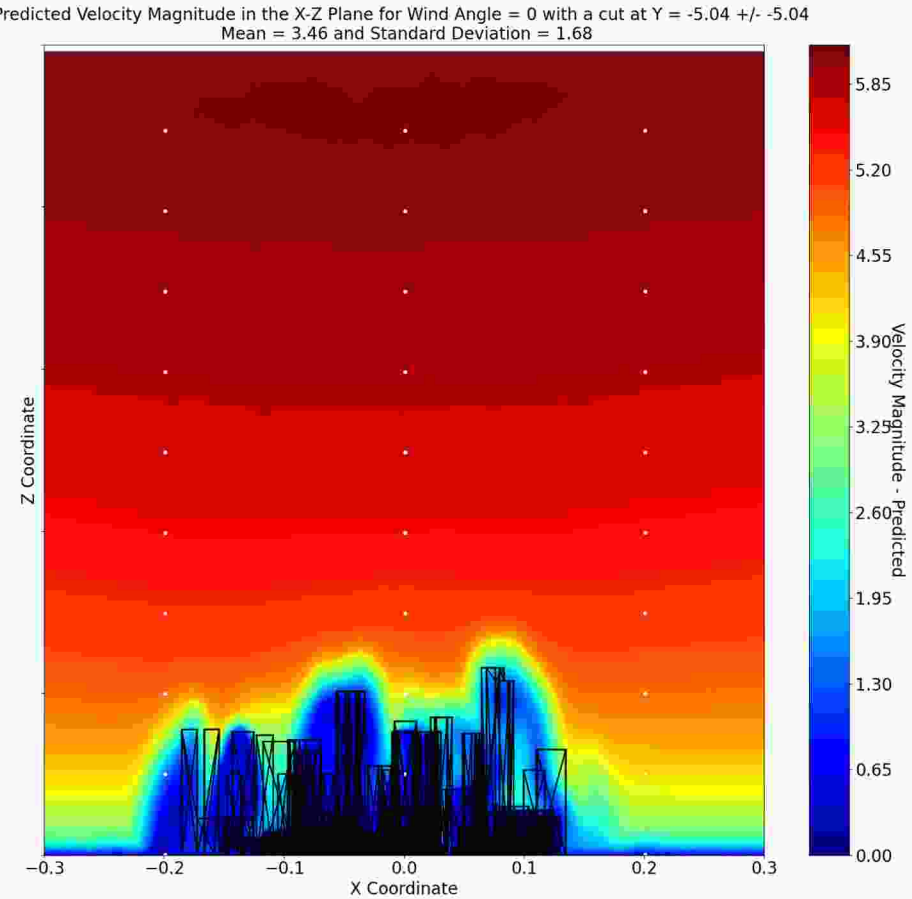

Pressure_Difference in the X-Z Plane for Wind Angle = 150 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010
−0.015


Pressure_Difference in the X-Z Plane for Wind Angle = 165 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.015
0.010
0.005
0.000
−0.005
−0.010

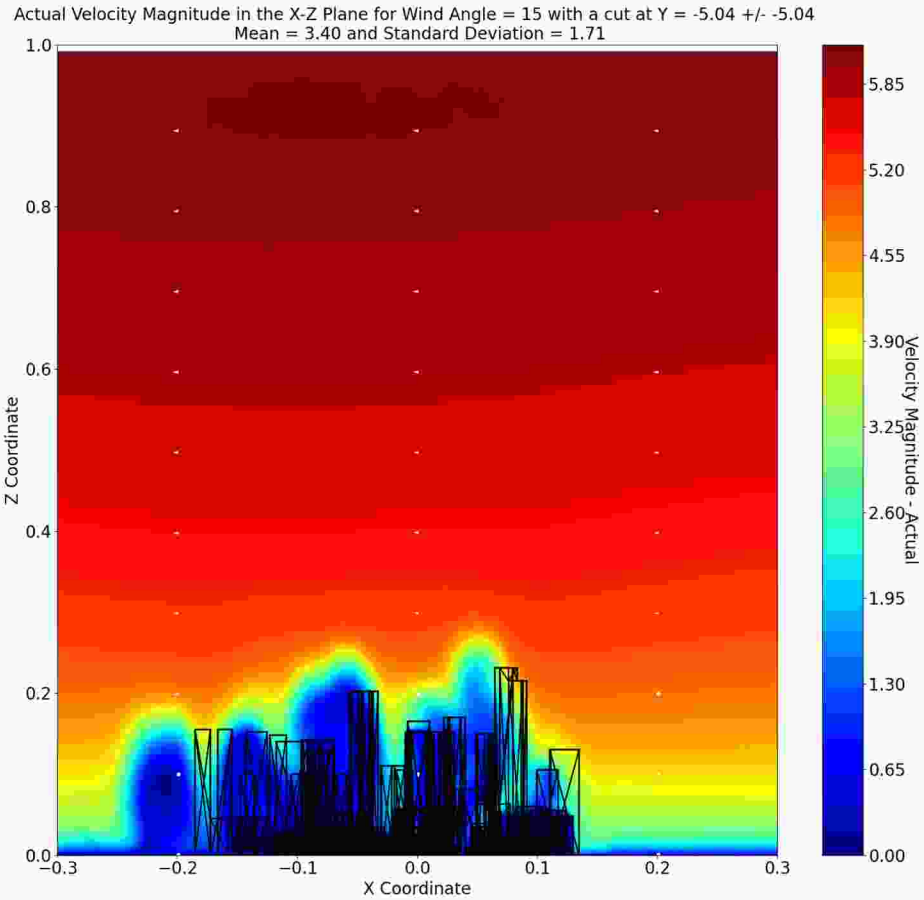

Pressure_Difference in the X-Z Plane for Wind Angle = 180 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Pressure Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015

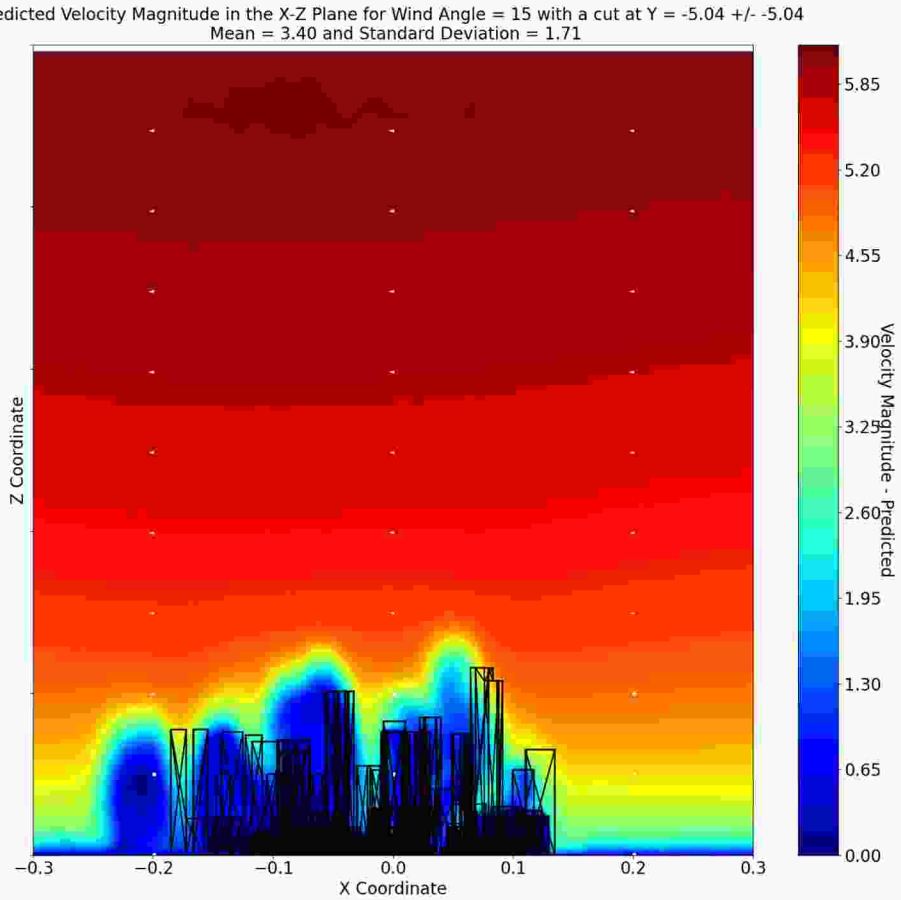
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



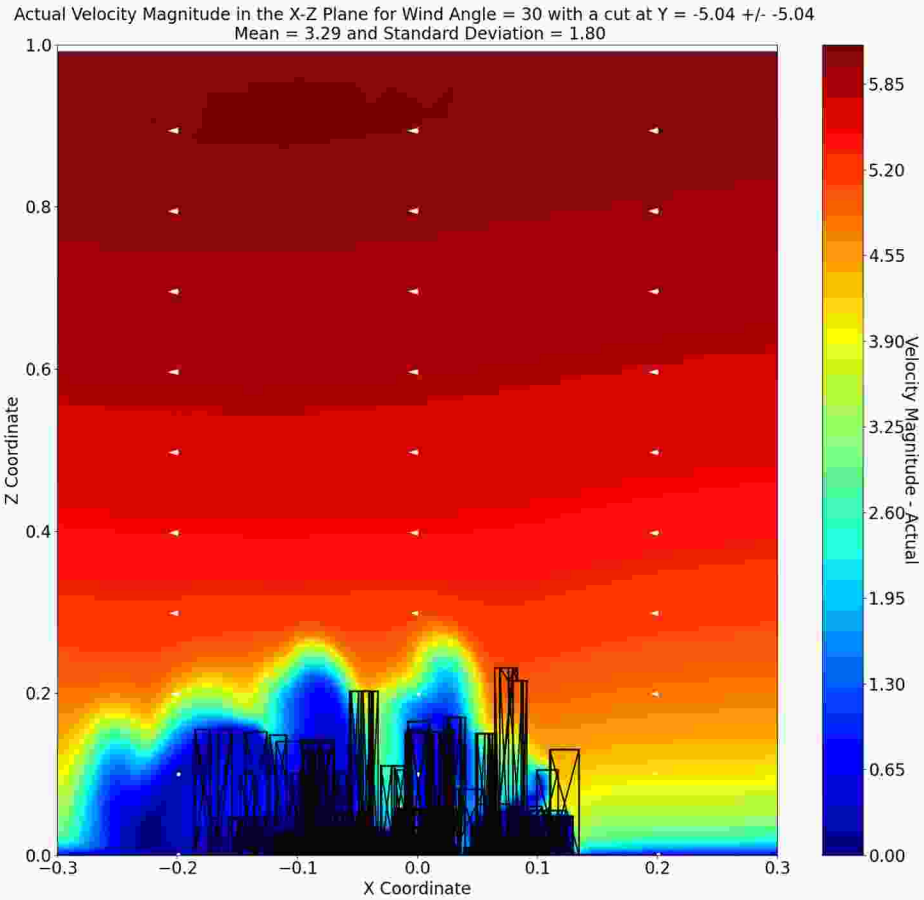


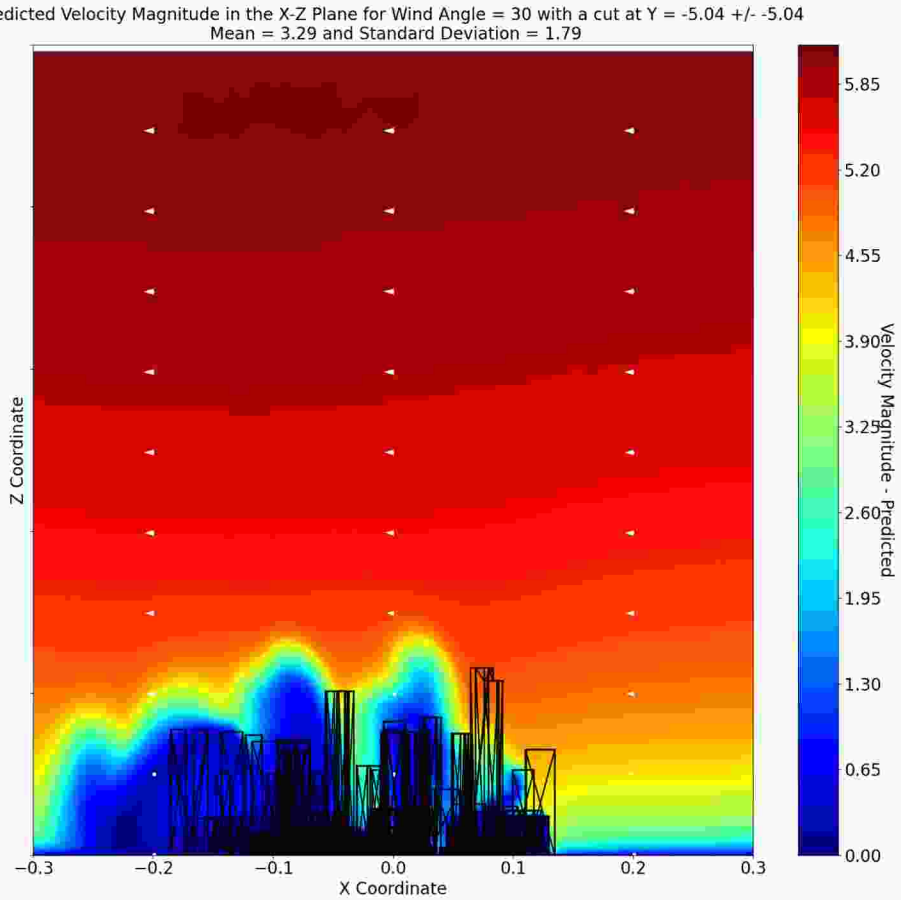
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



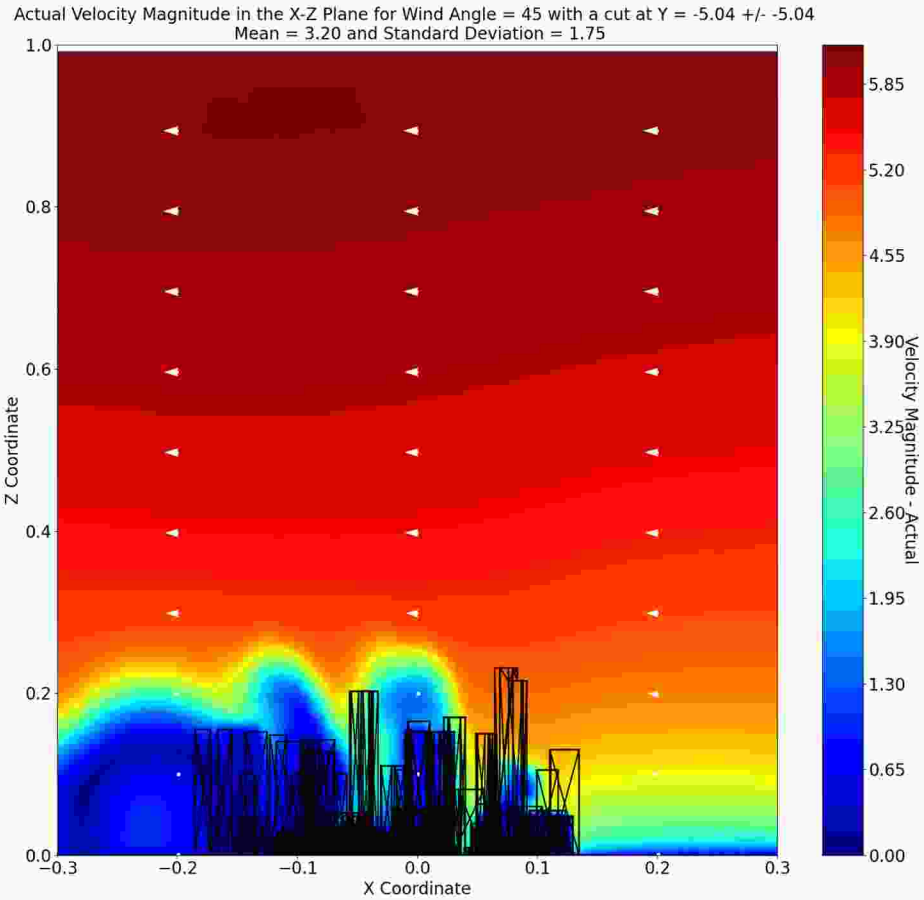


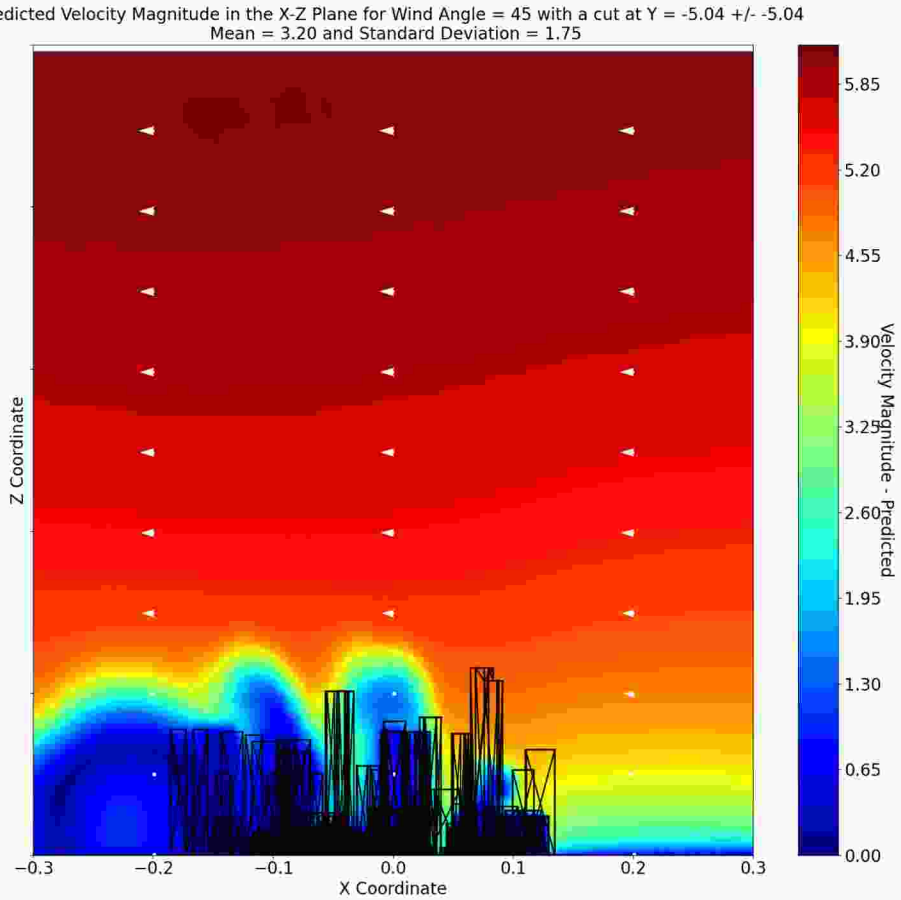
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



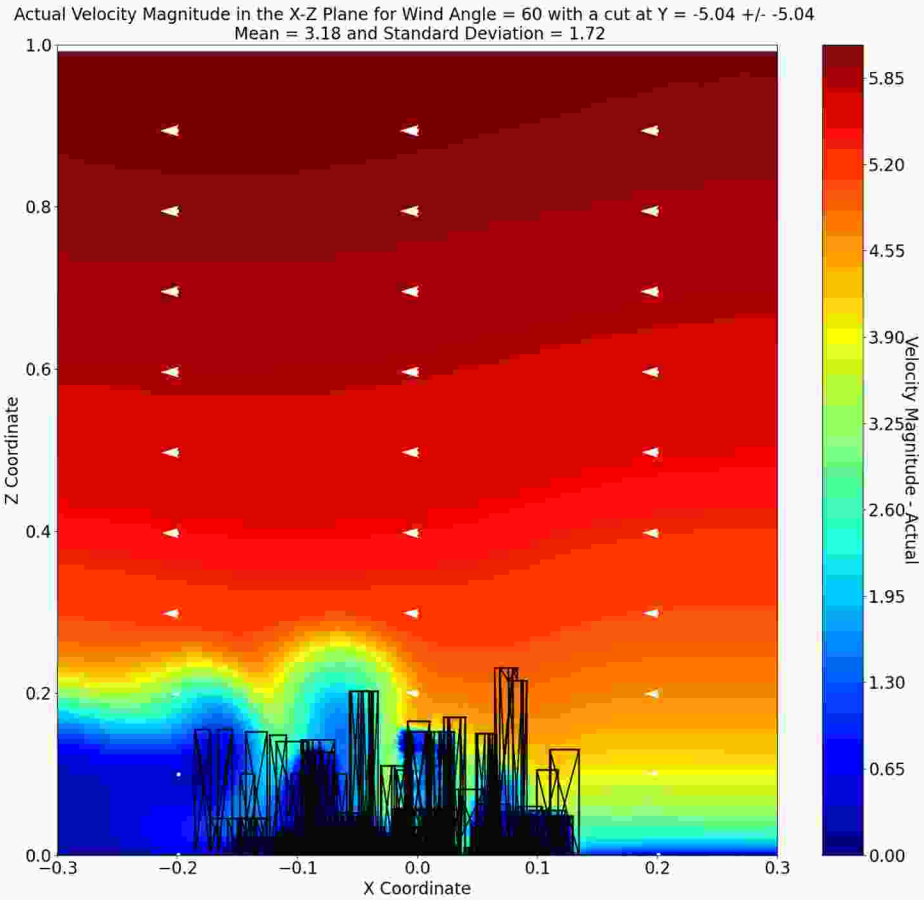


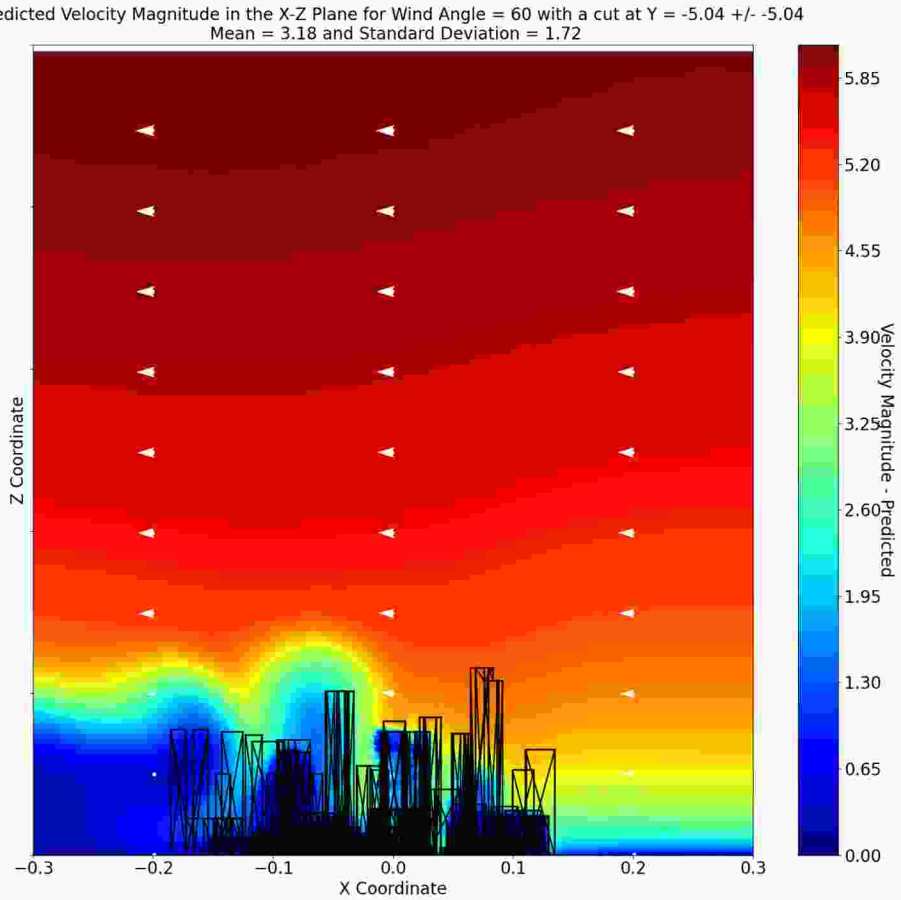
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



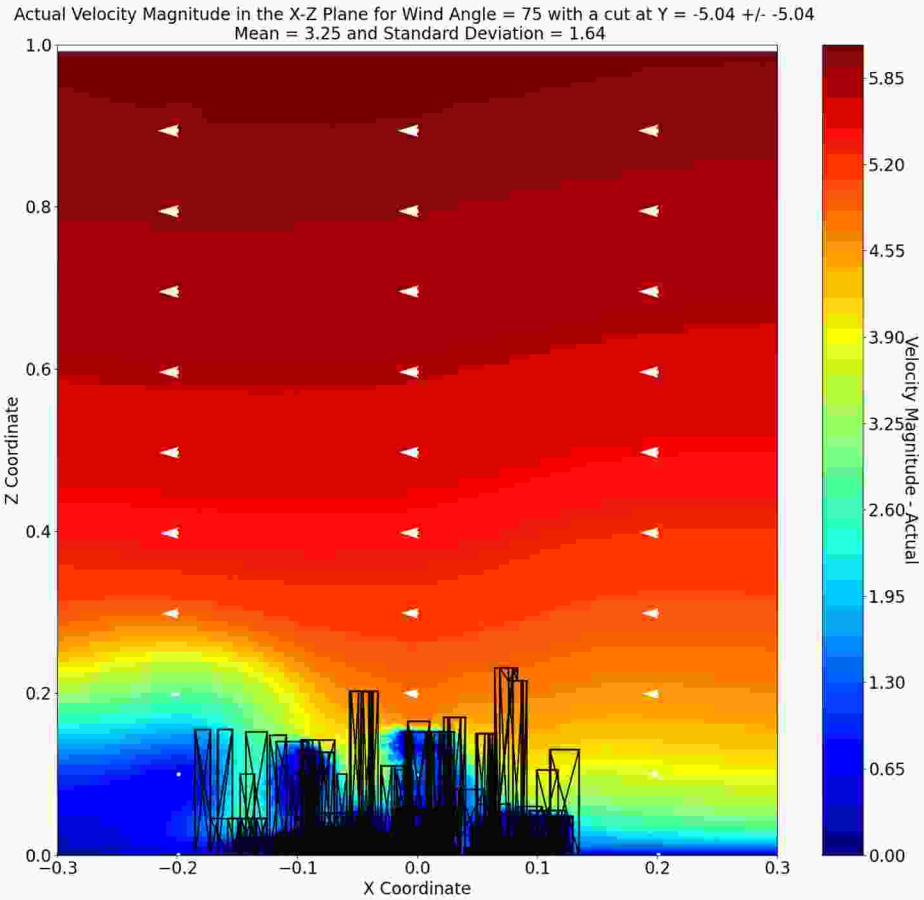


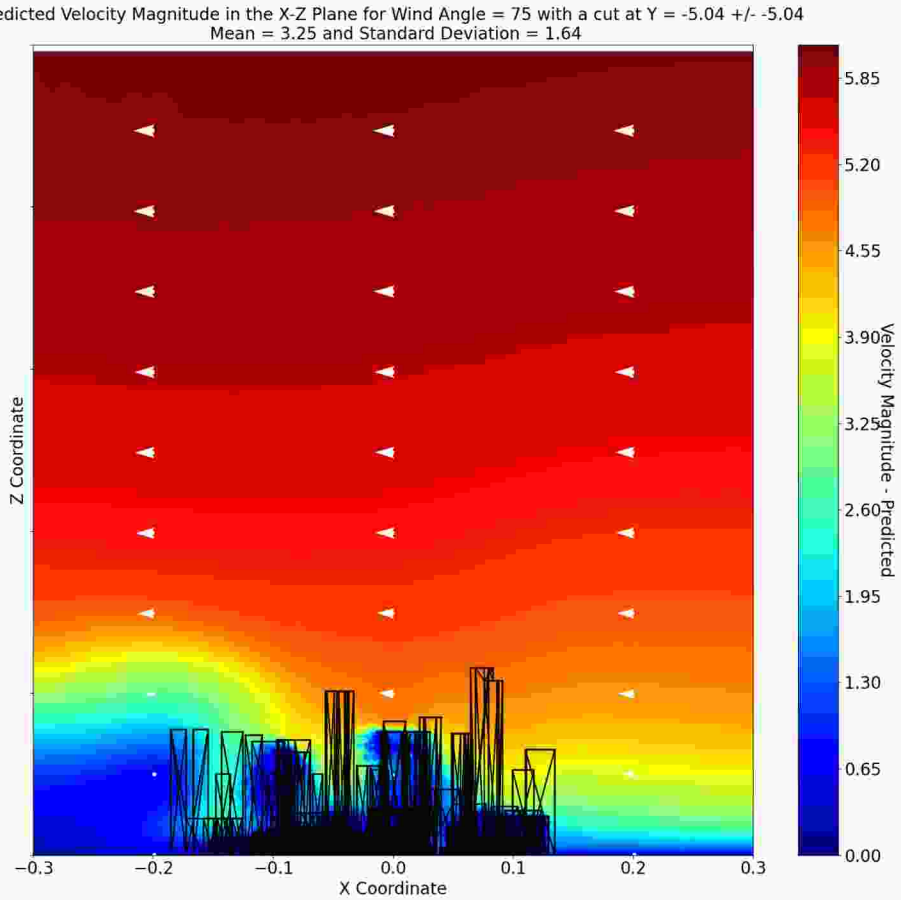
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



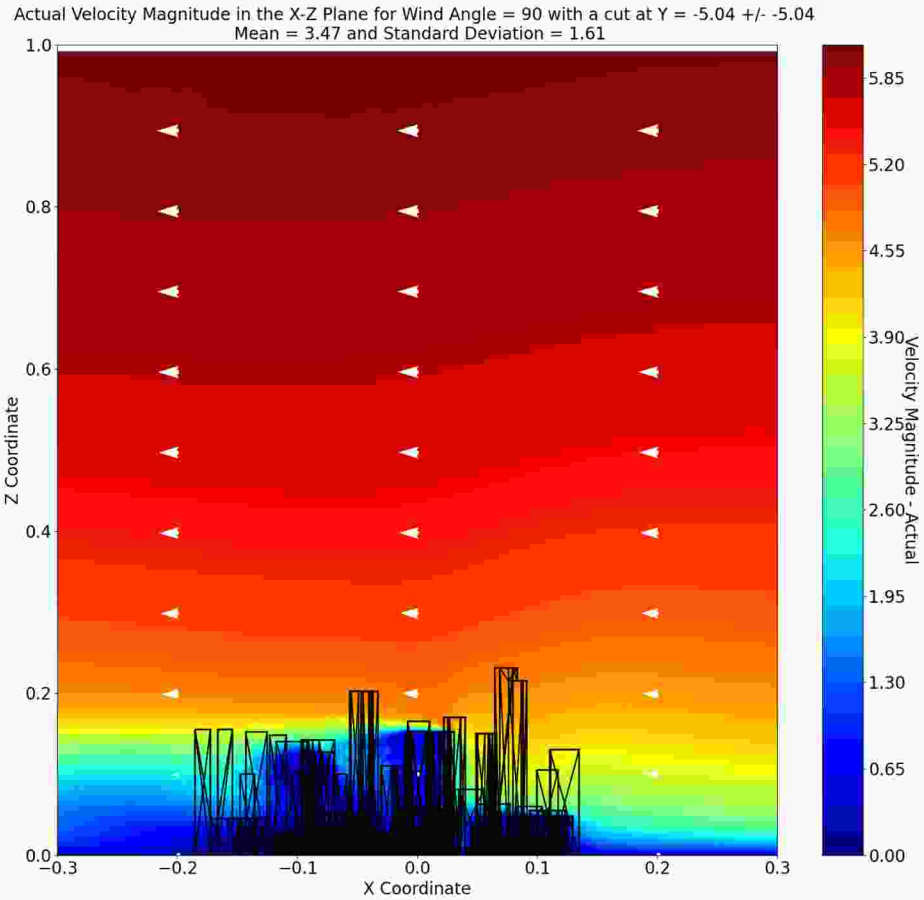


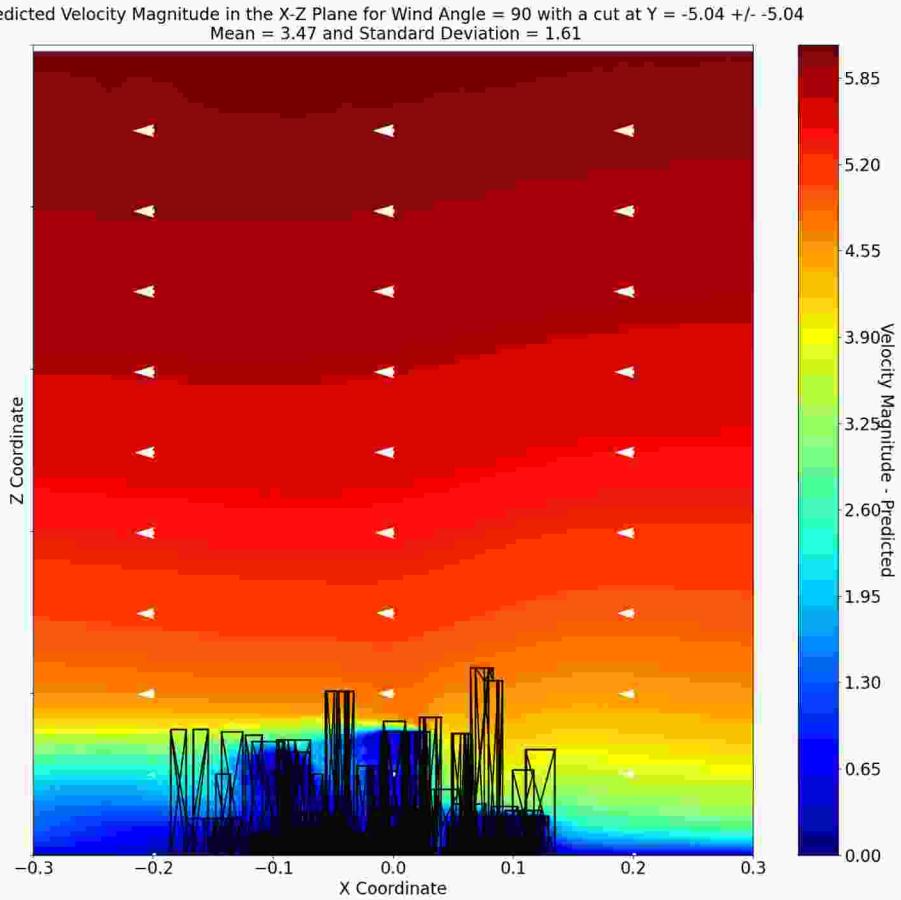
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



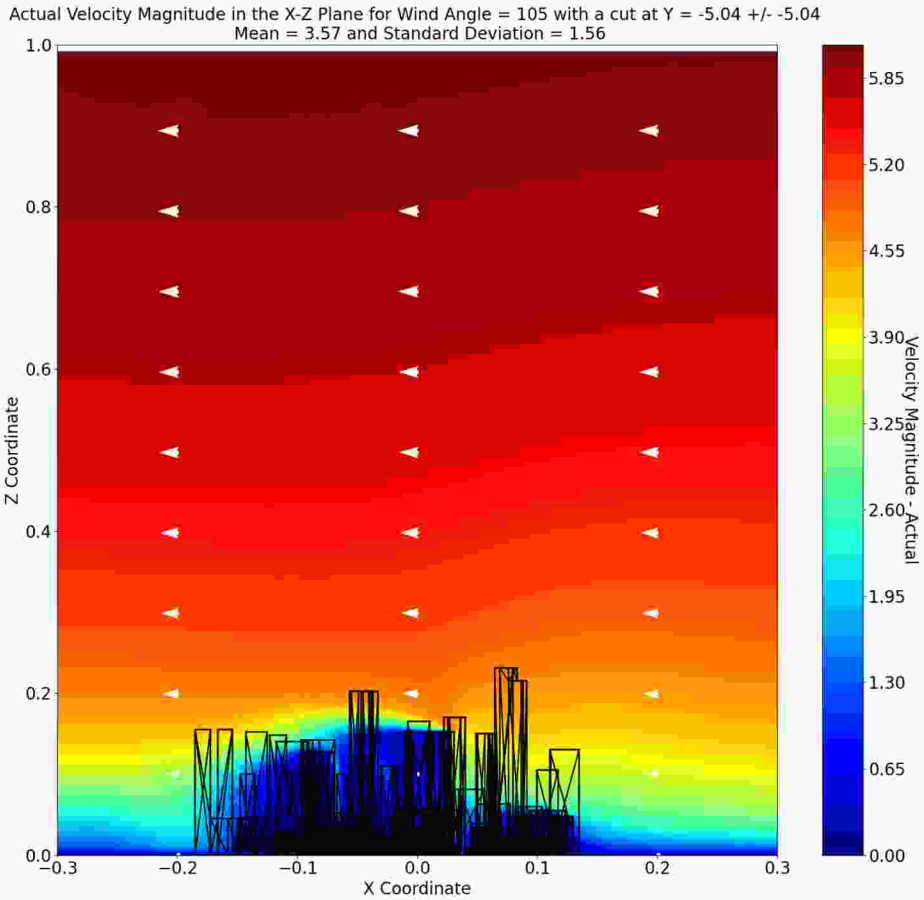


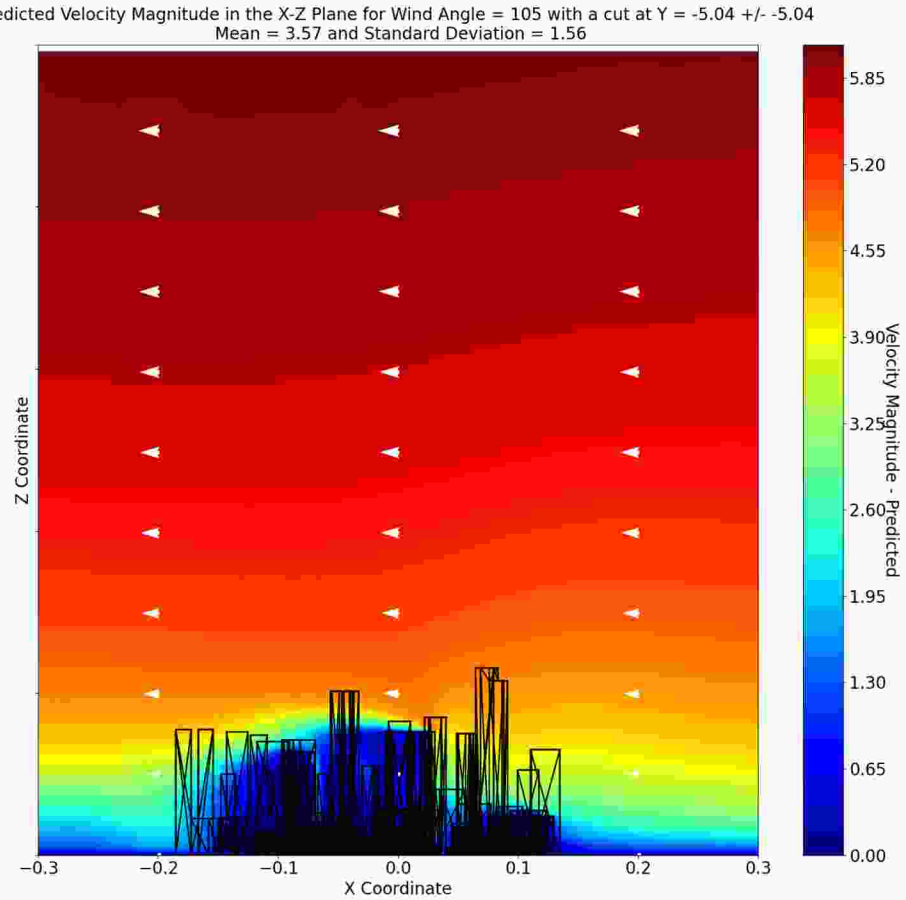
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



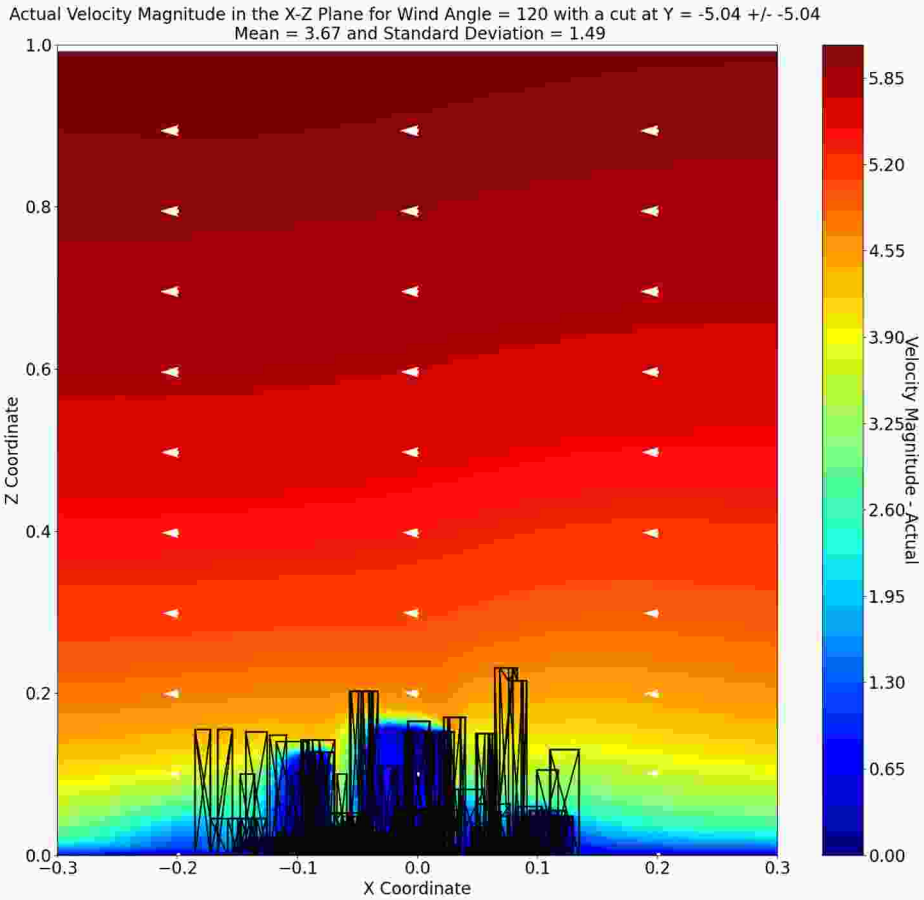


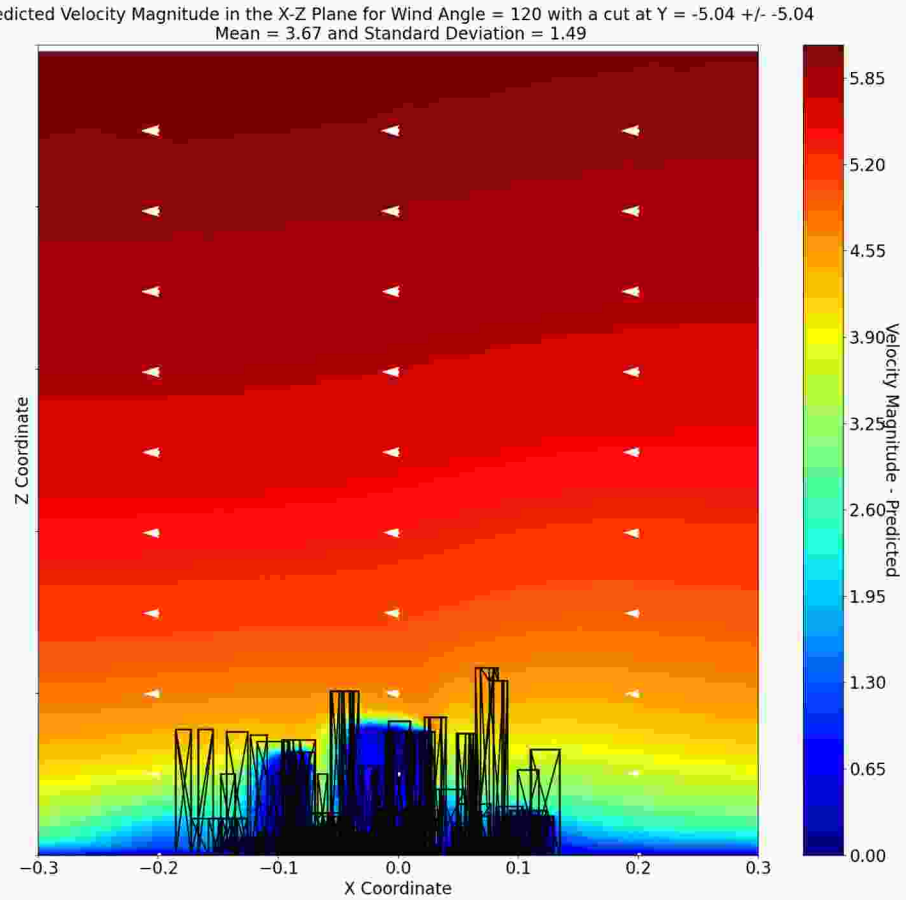
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



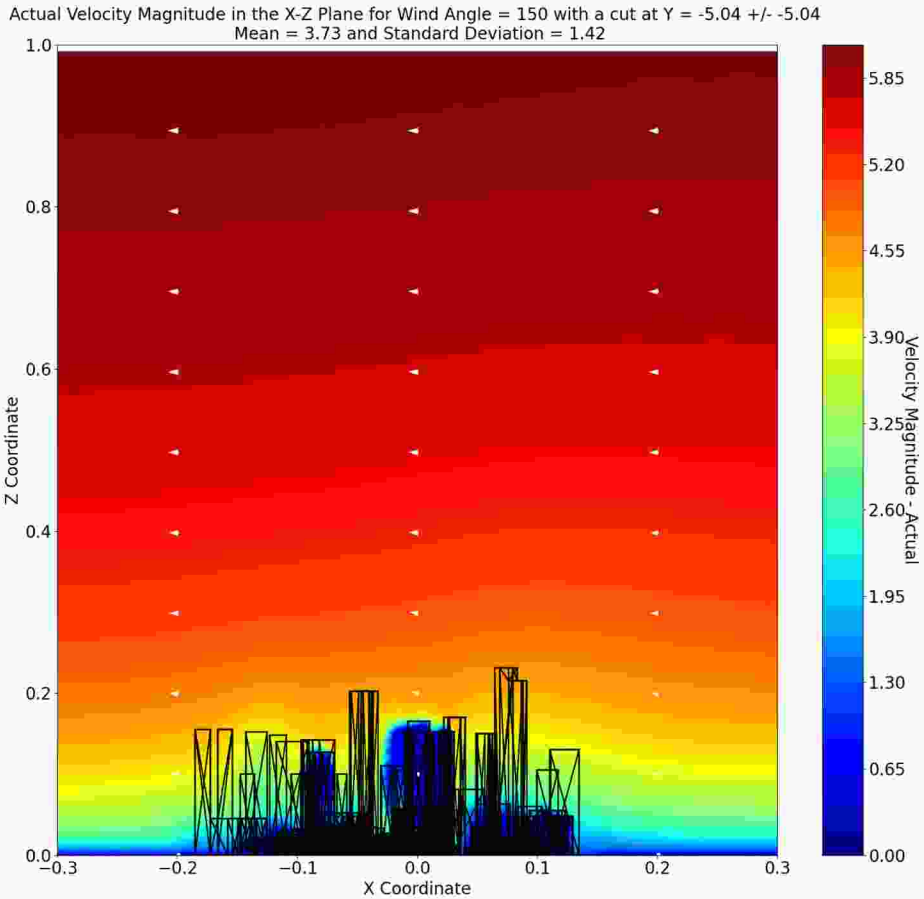


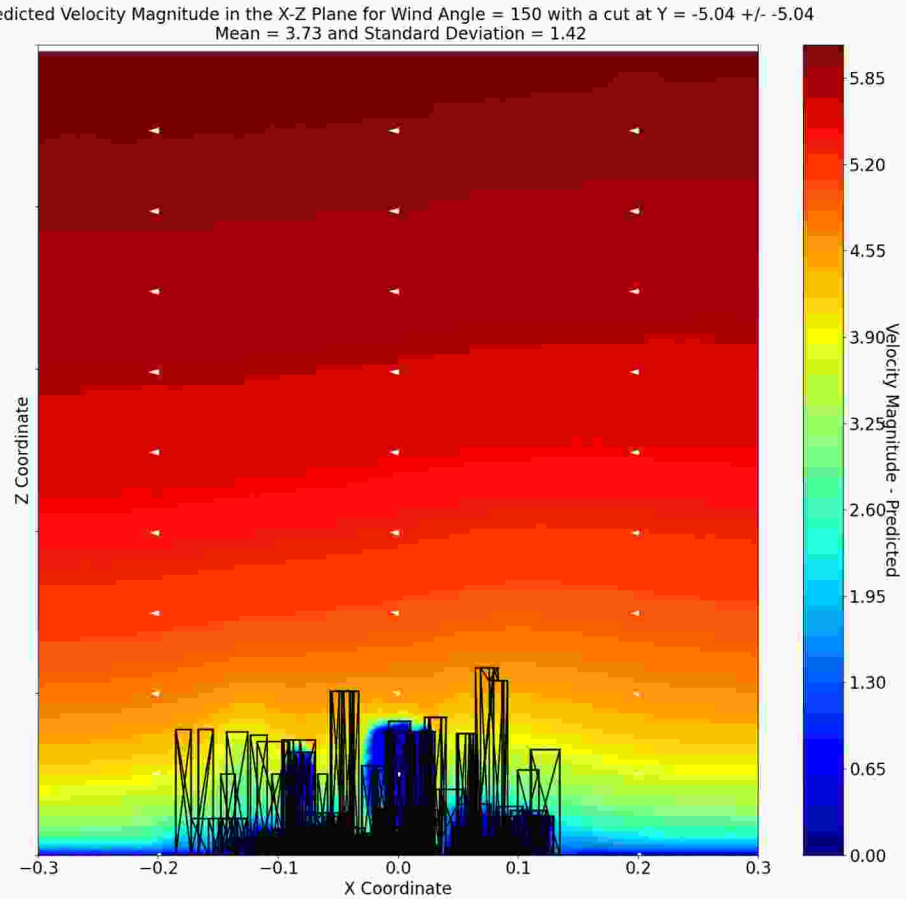
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



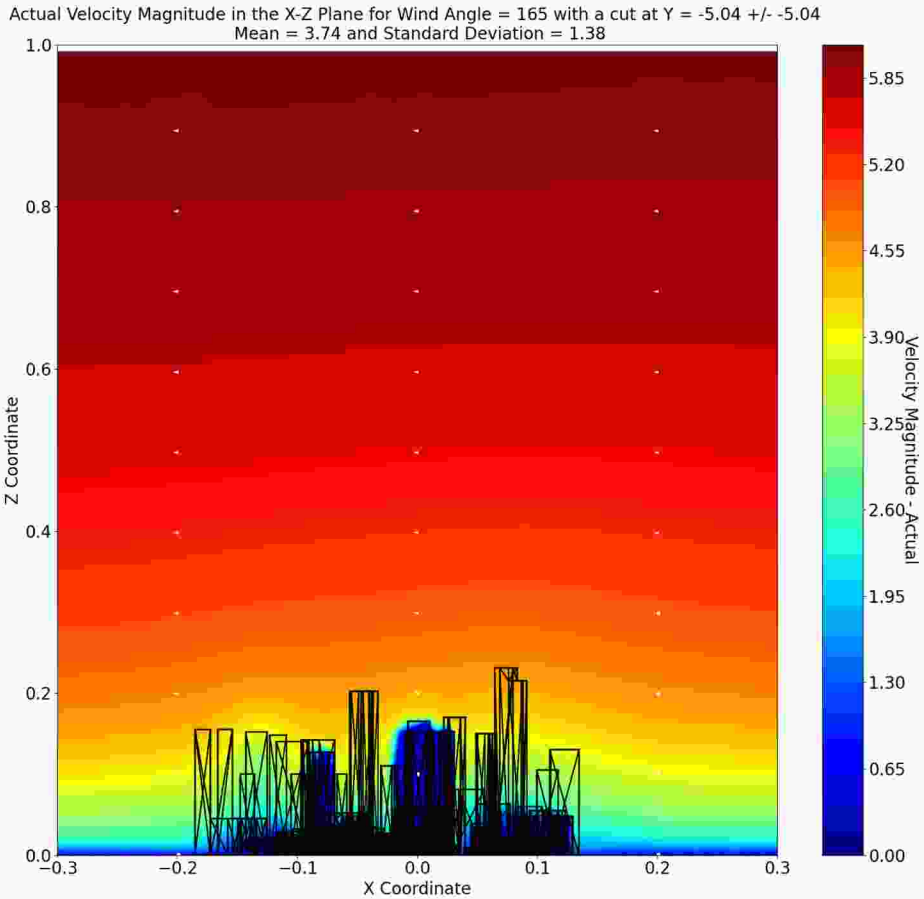


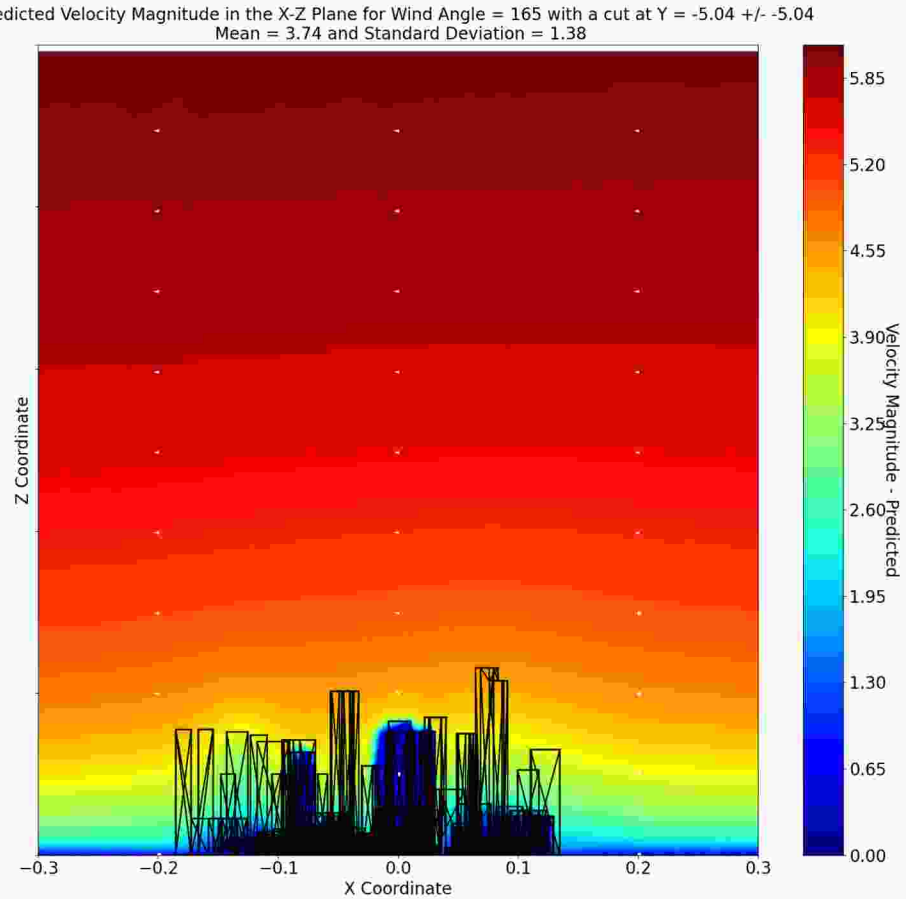
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



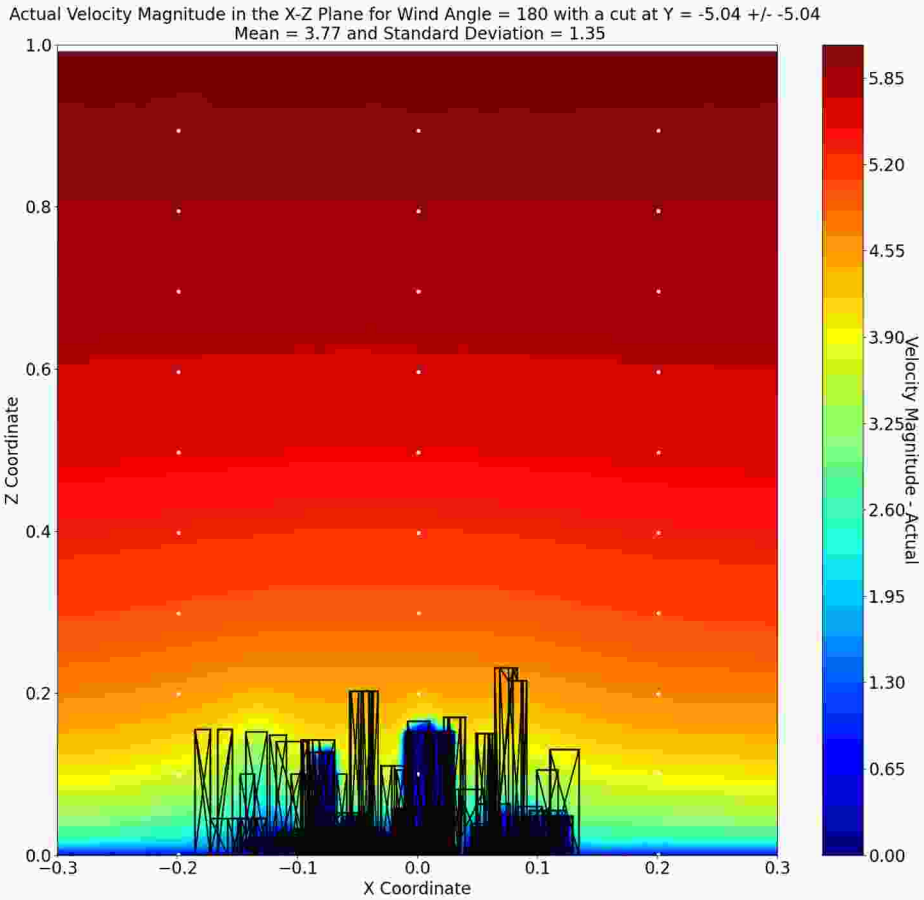


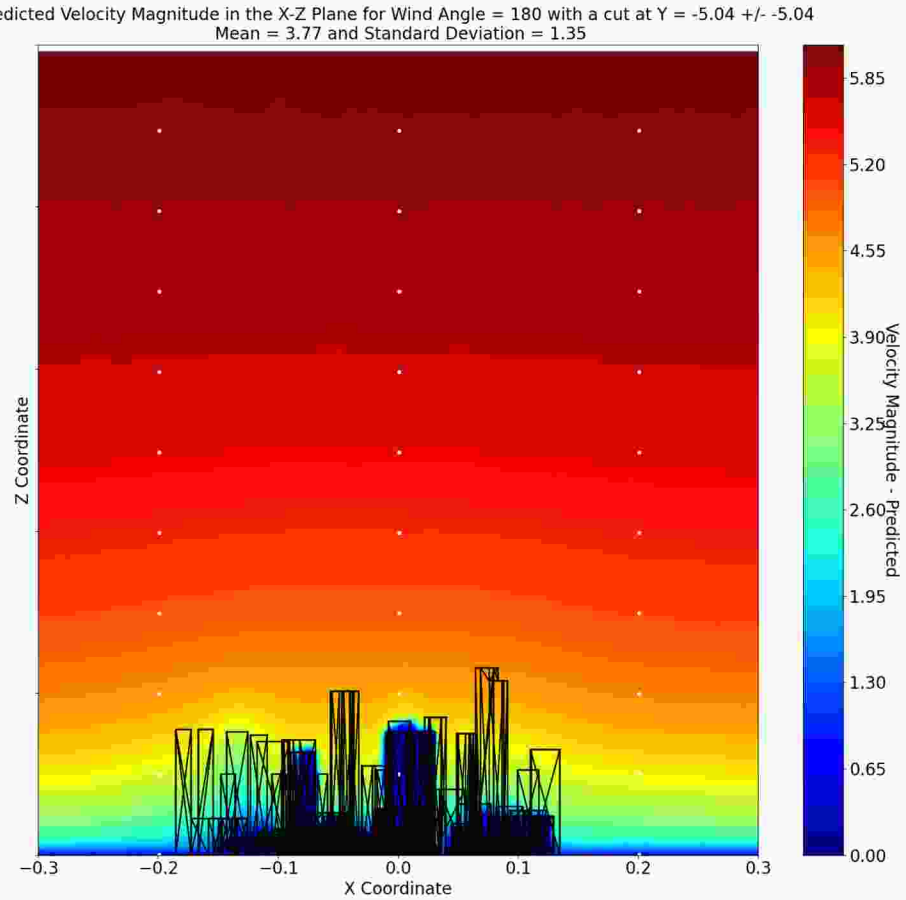
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



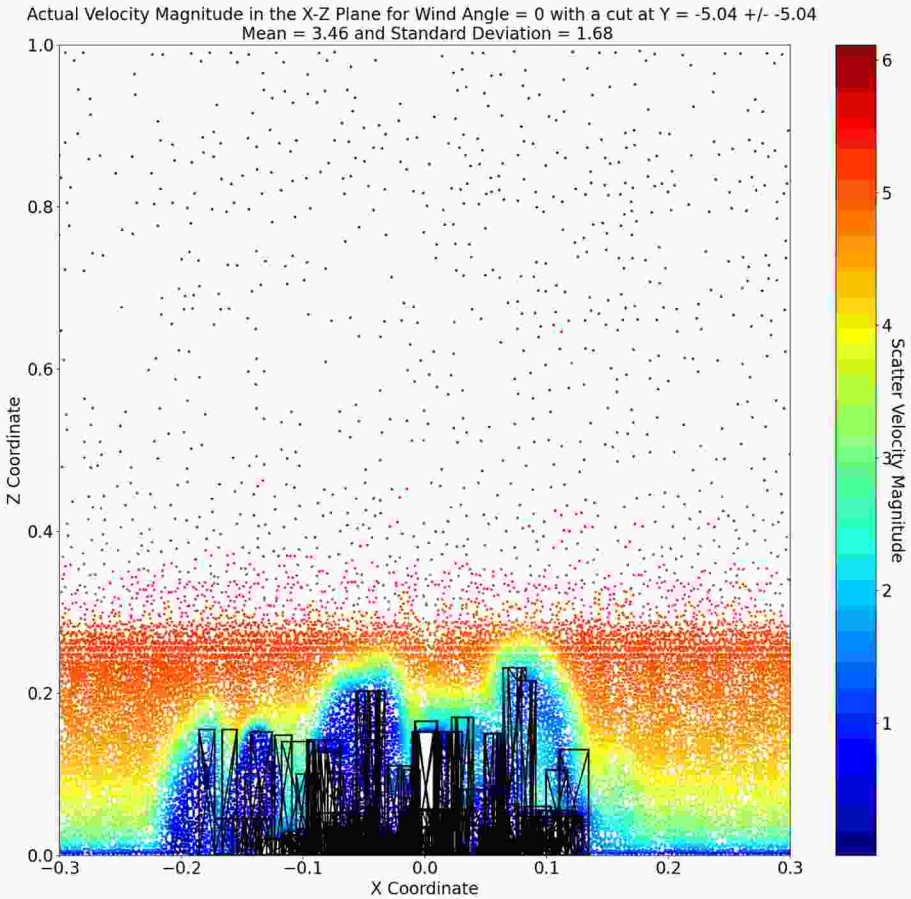


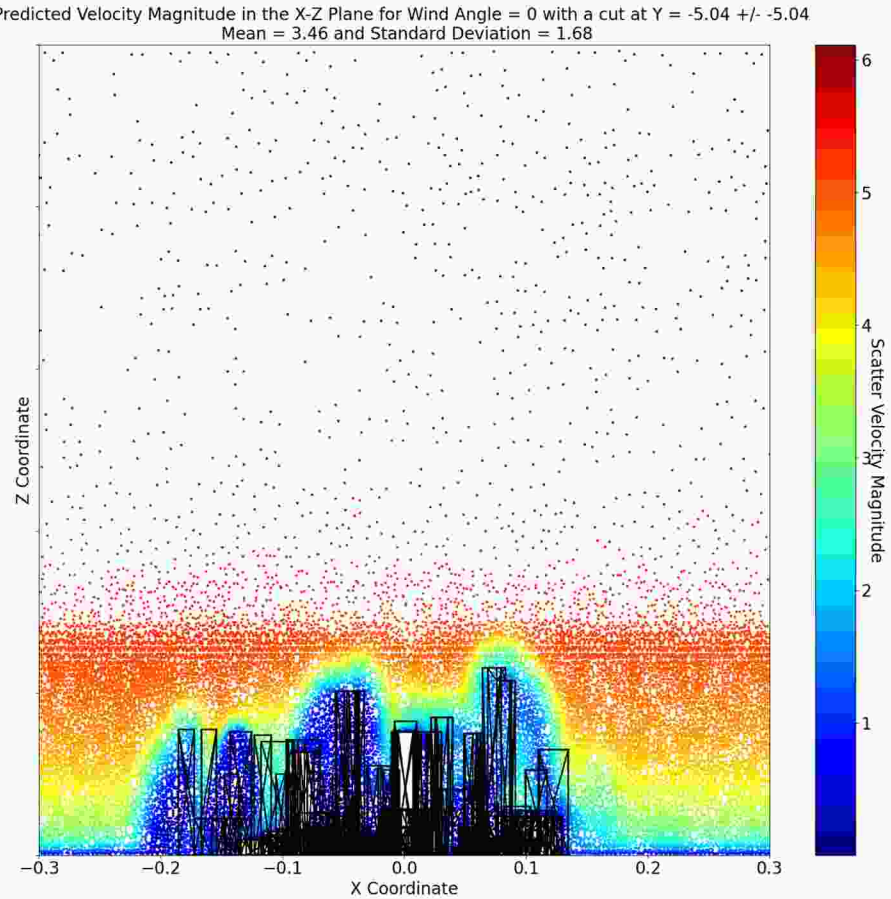
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



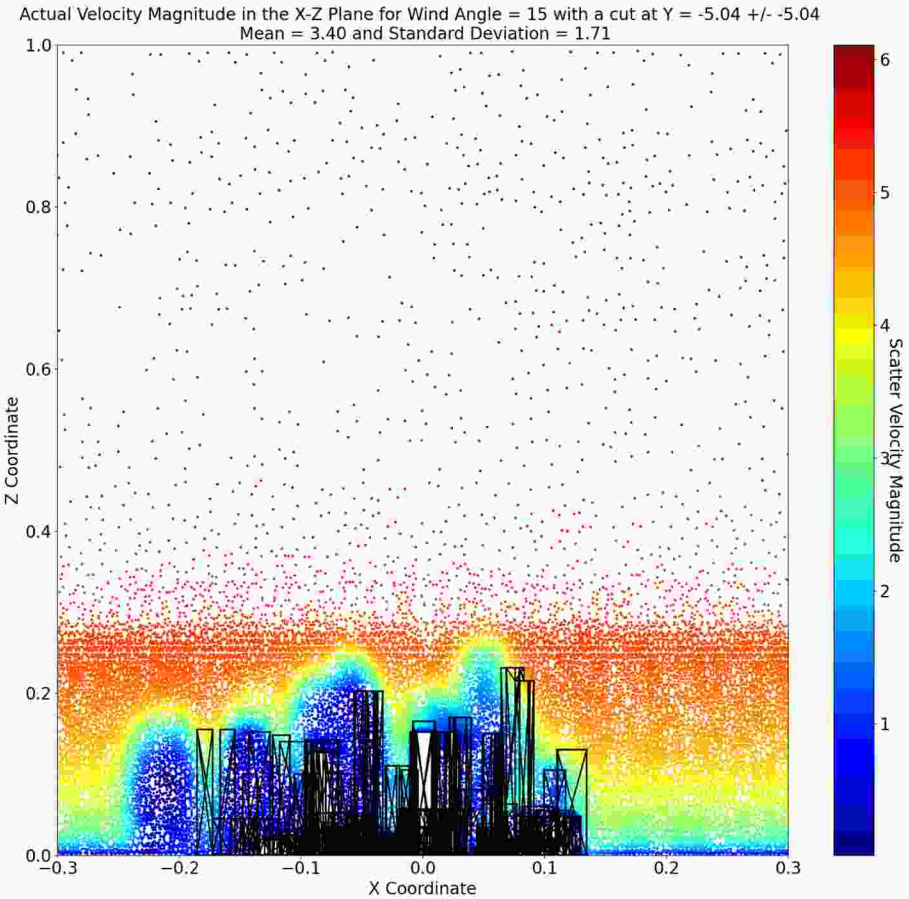


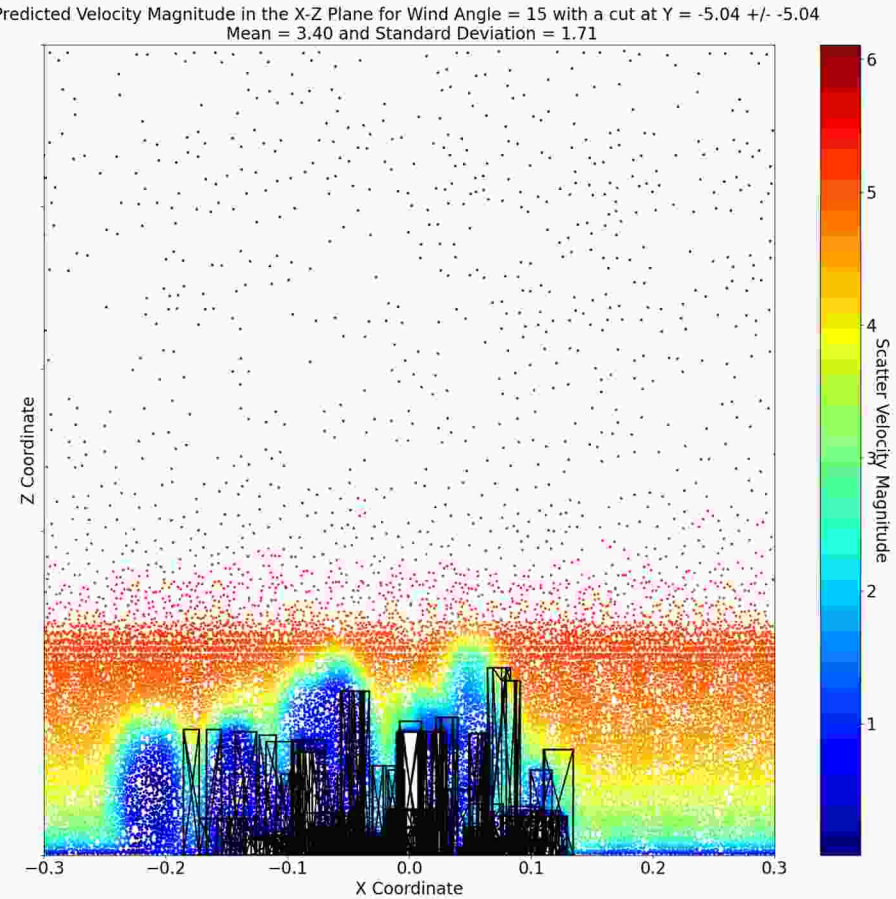
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



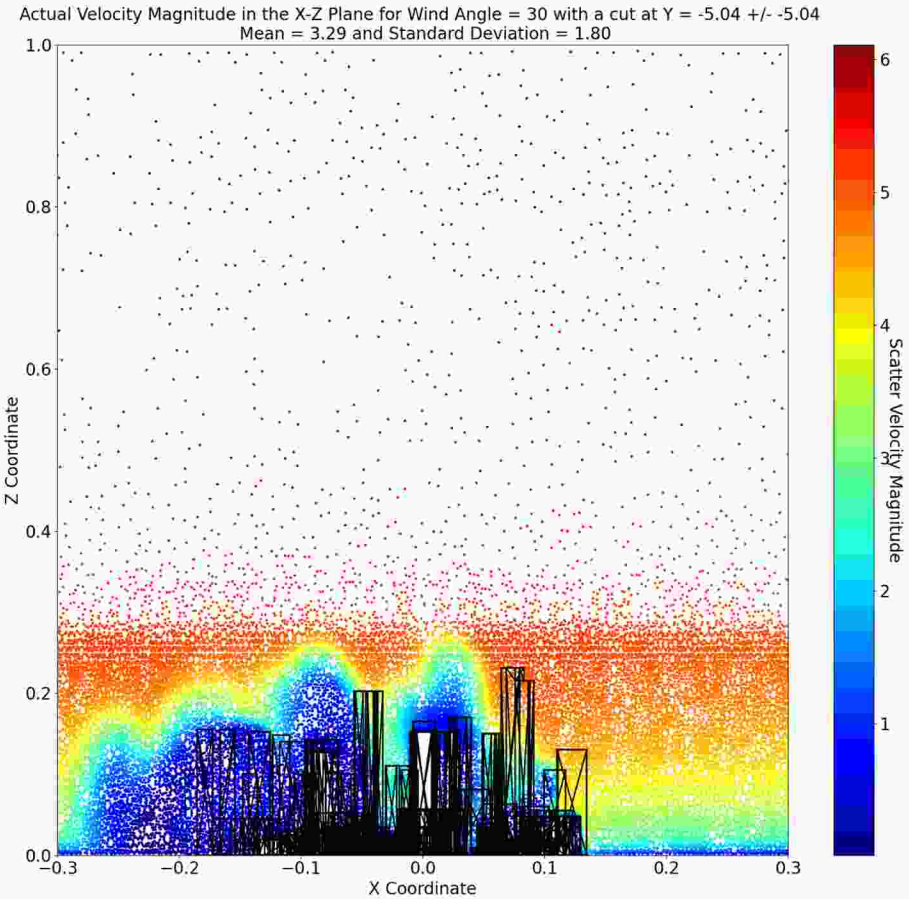


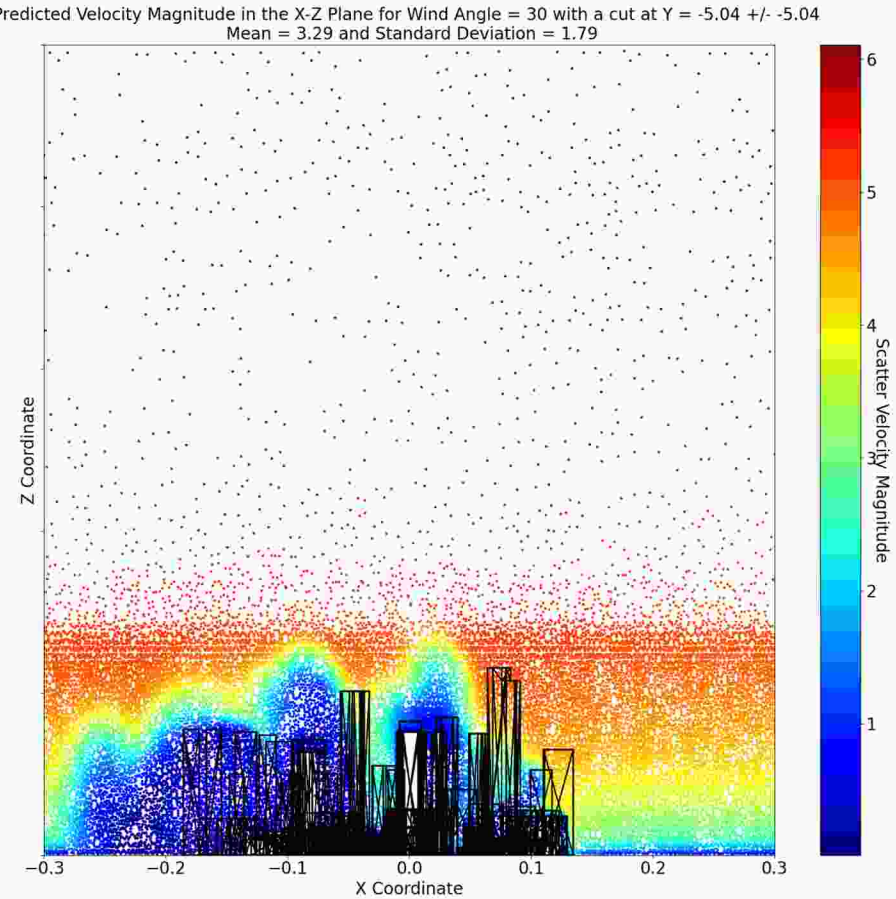
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



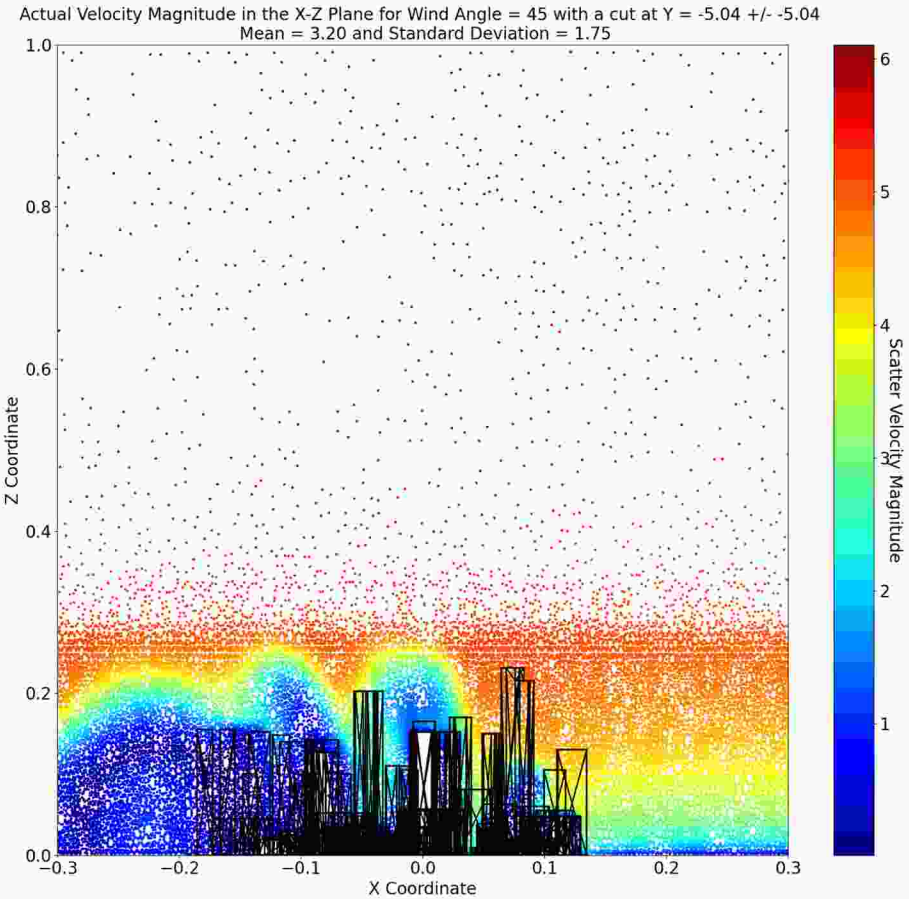


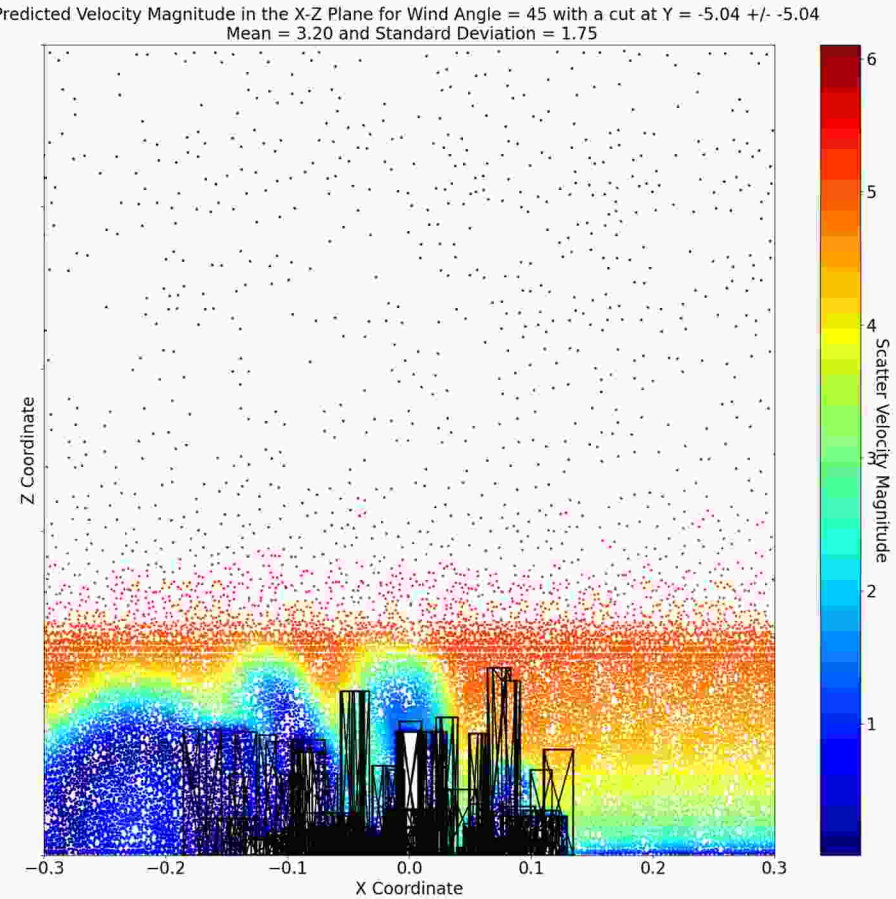
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



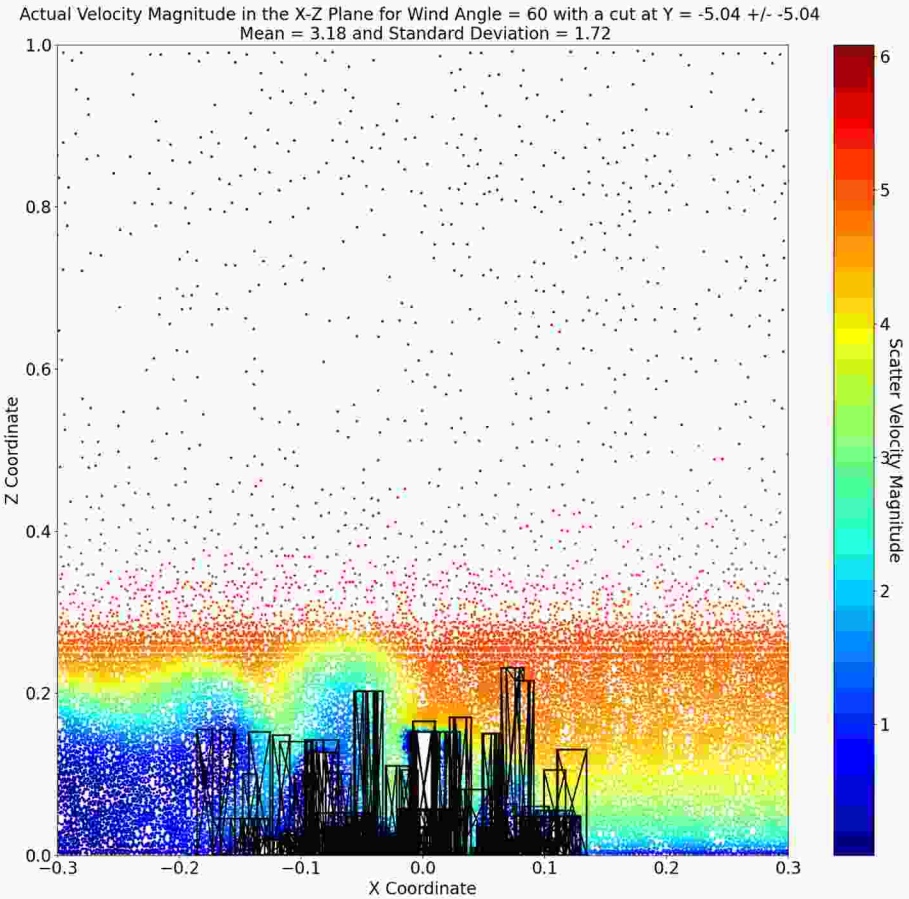


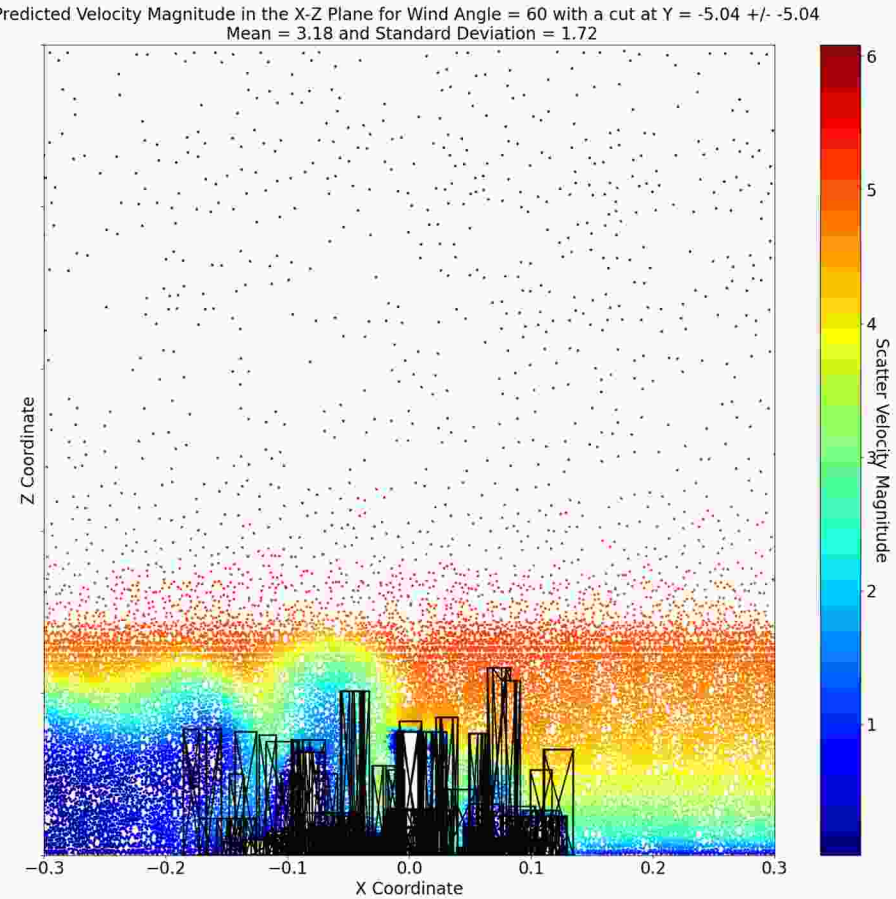
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



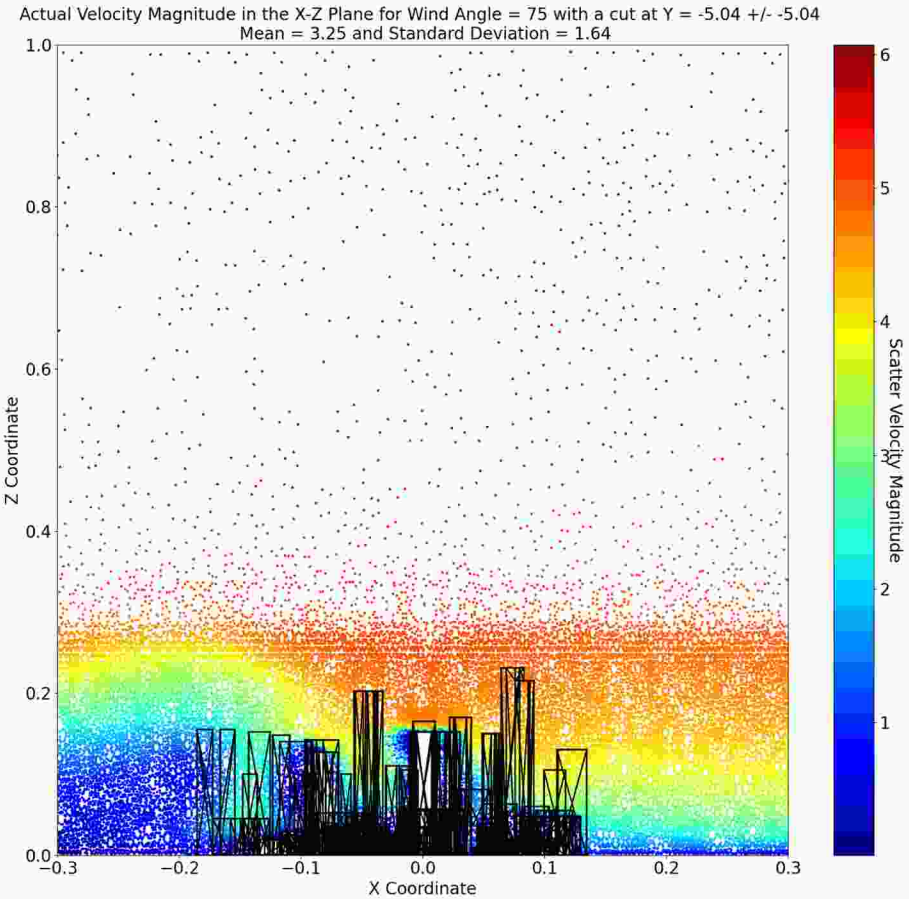


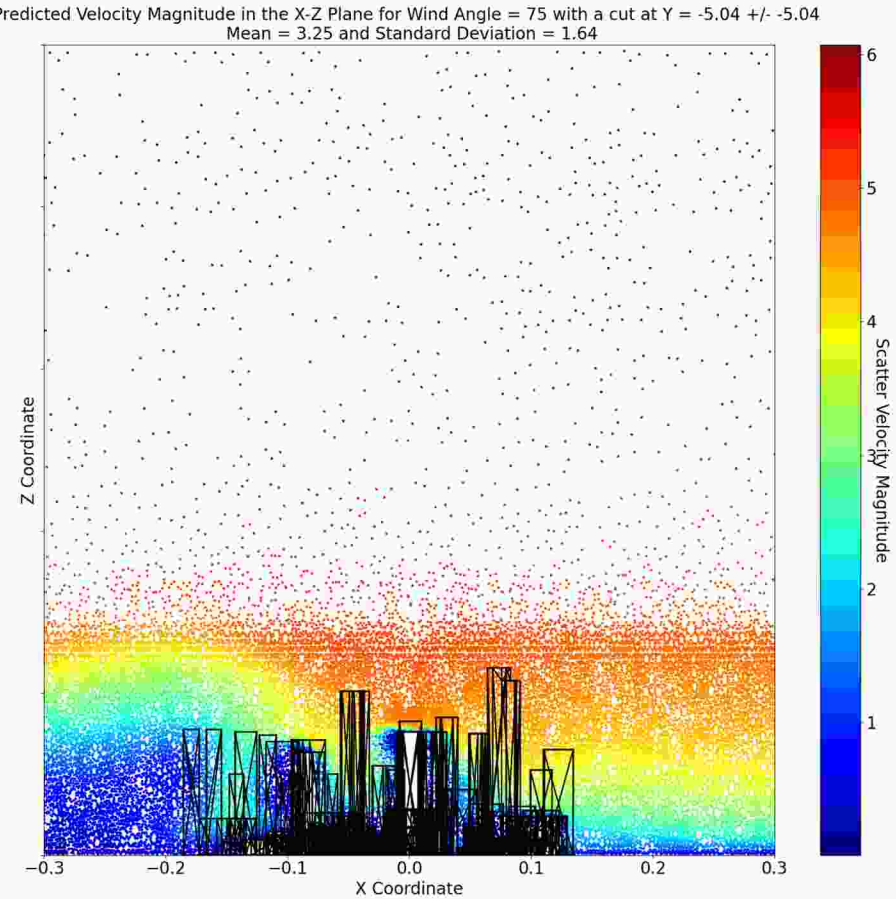
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



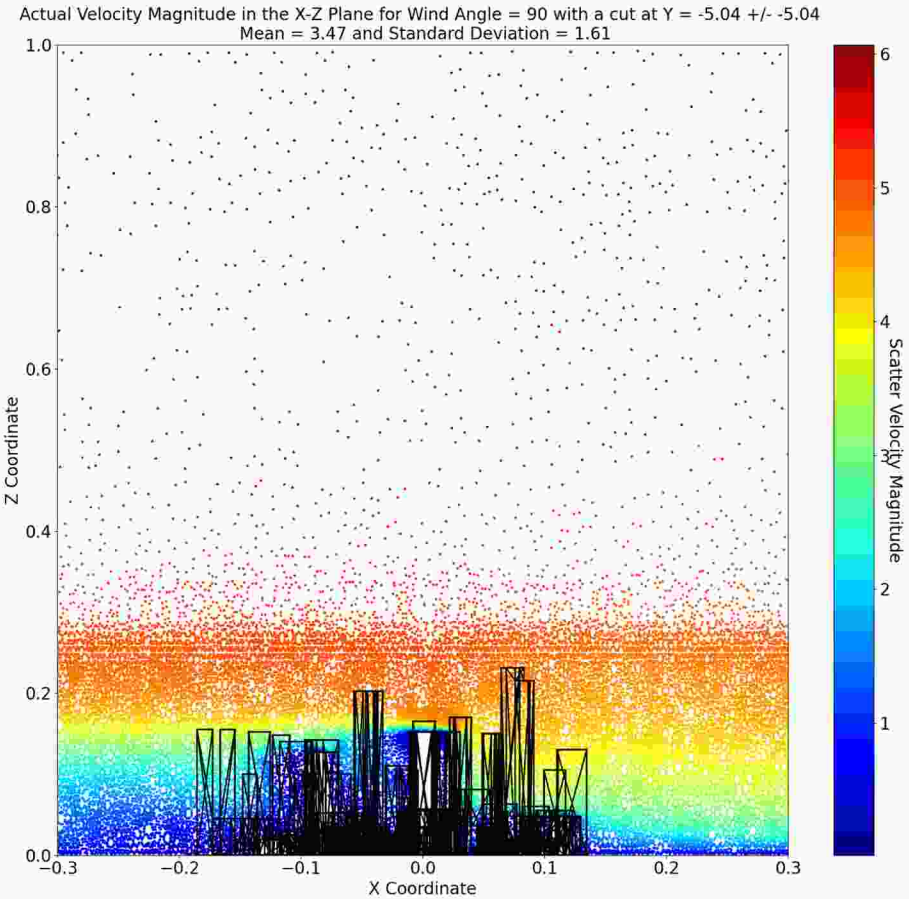


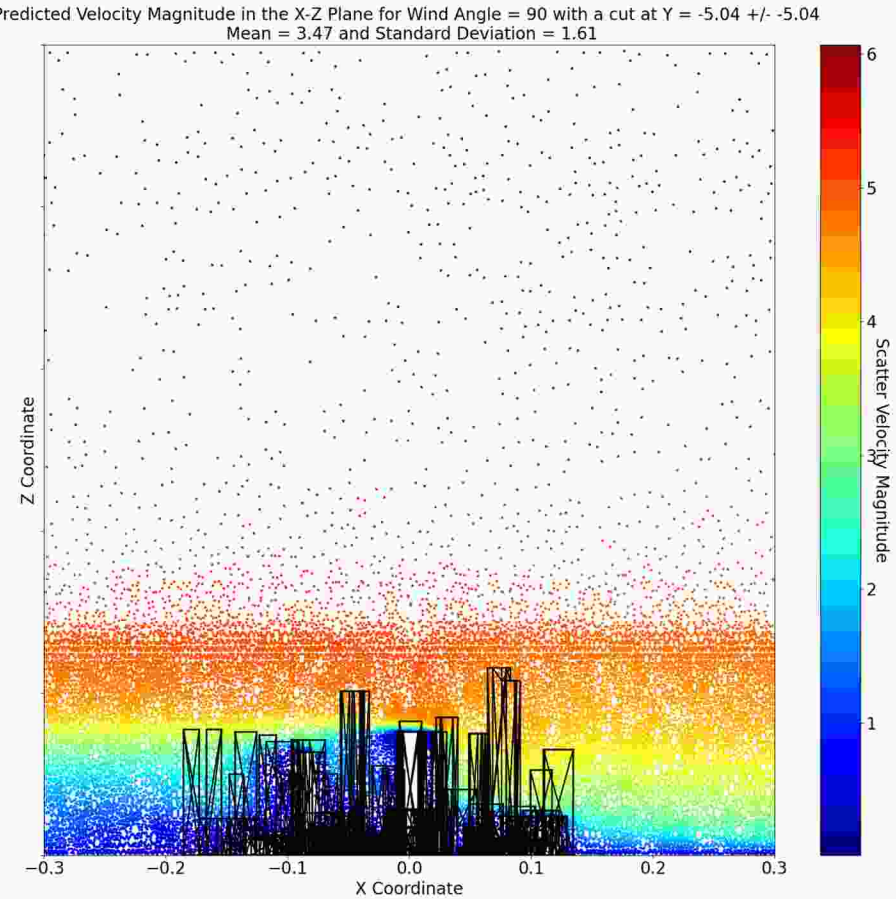
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



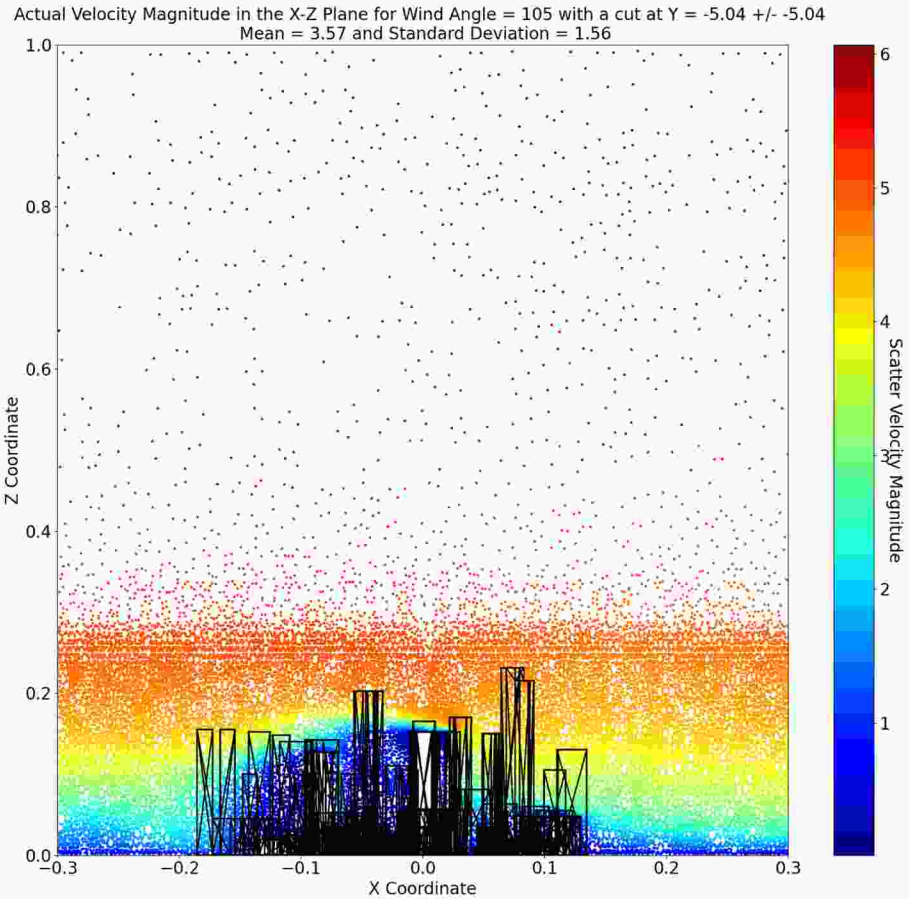


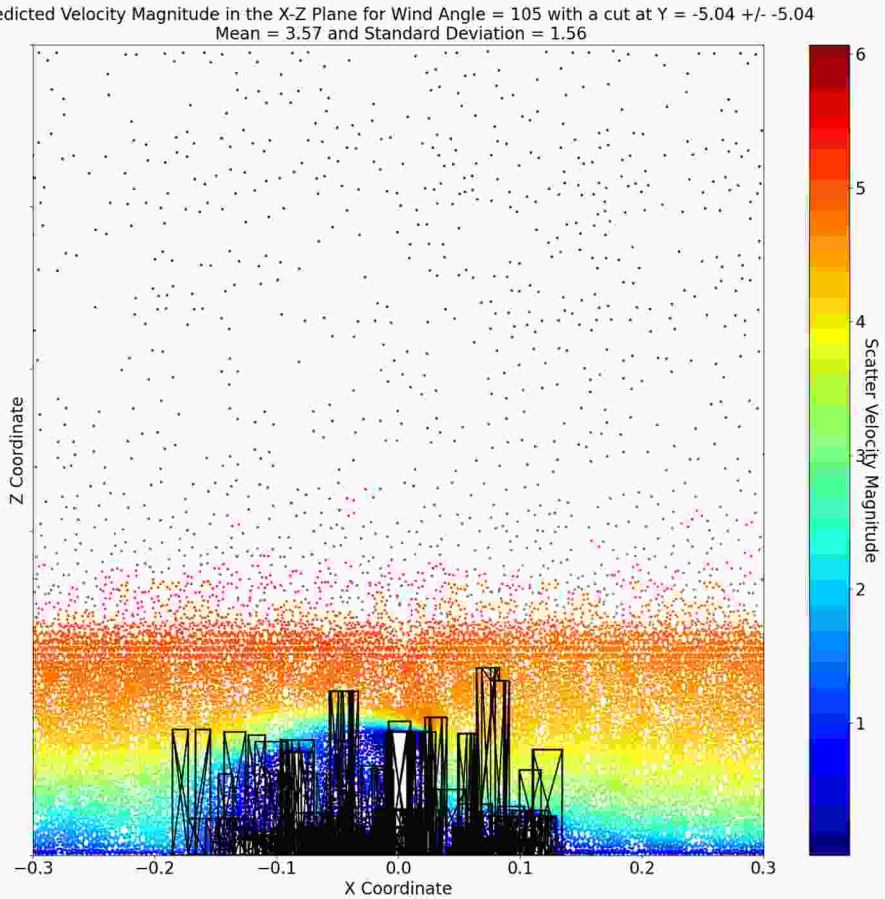
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



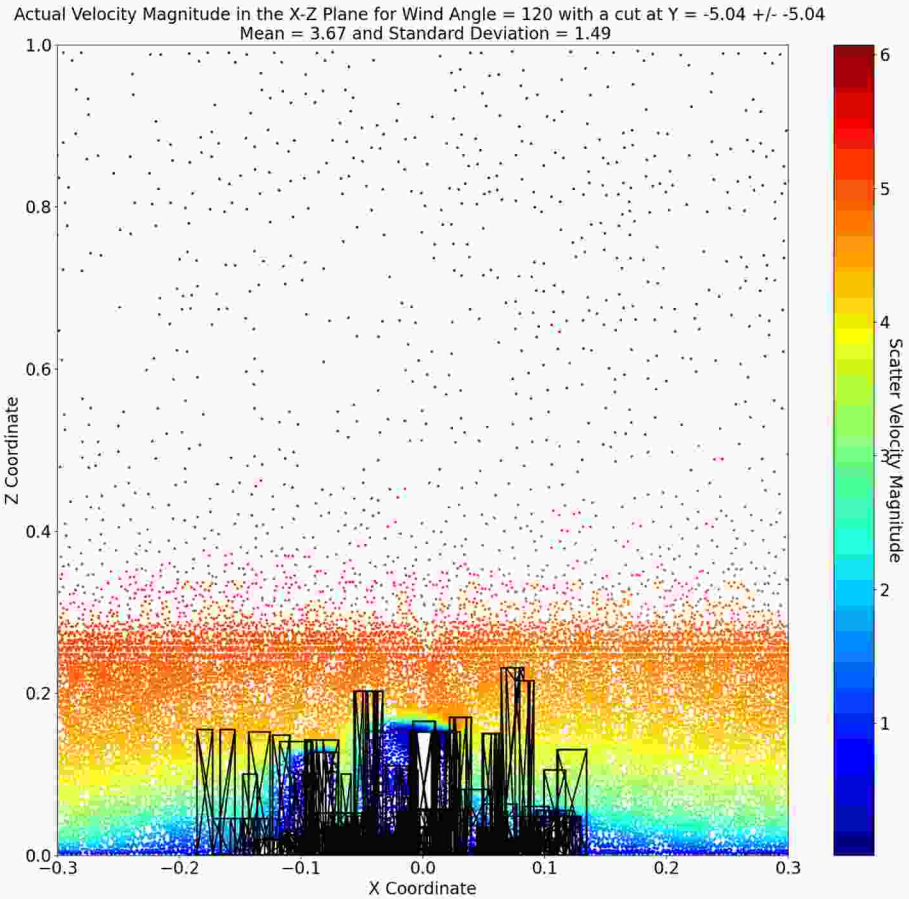


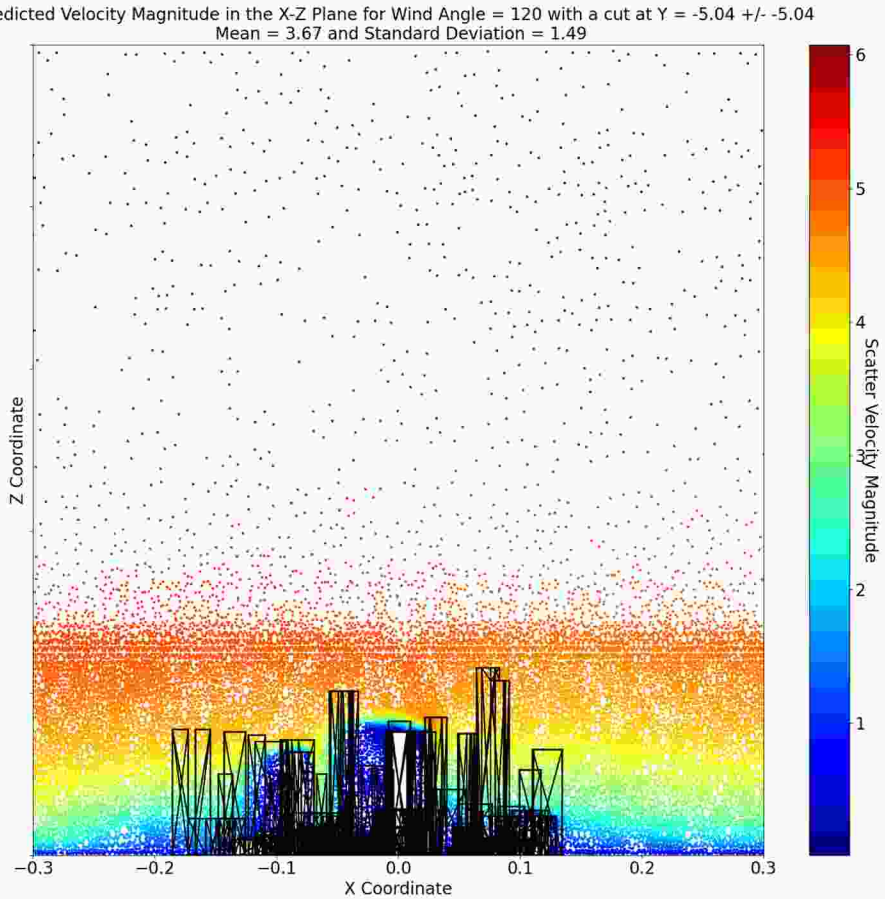
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



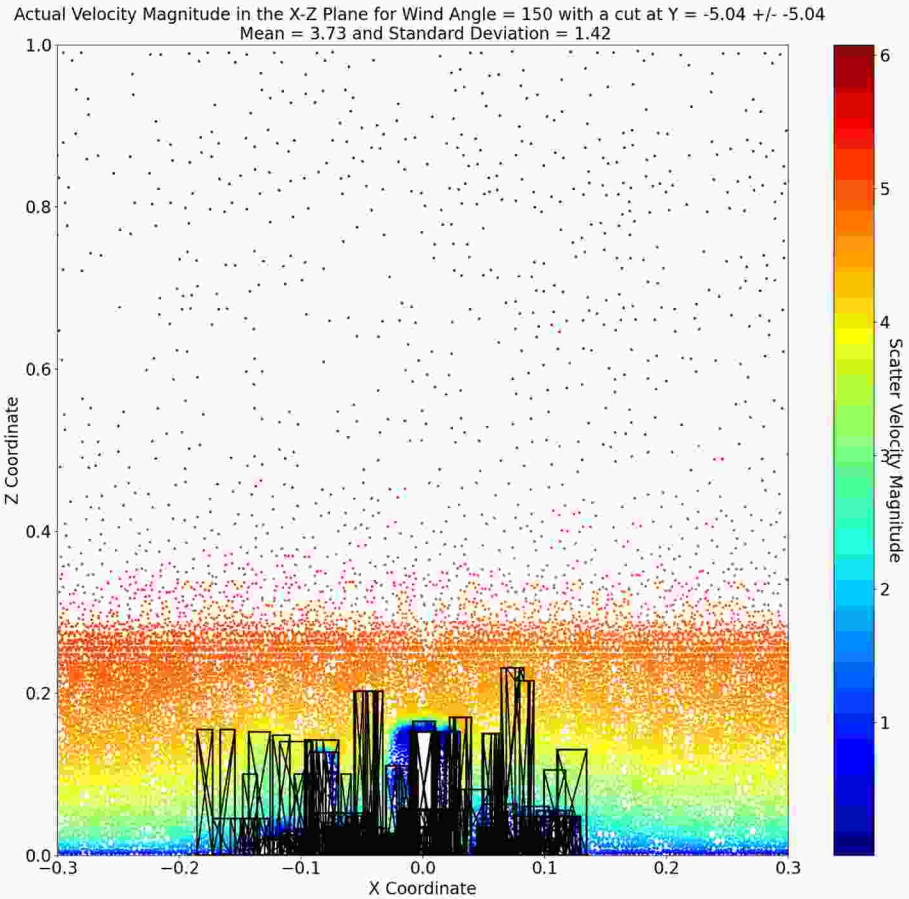


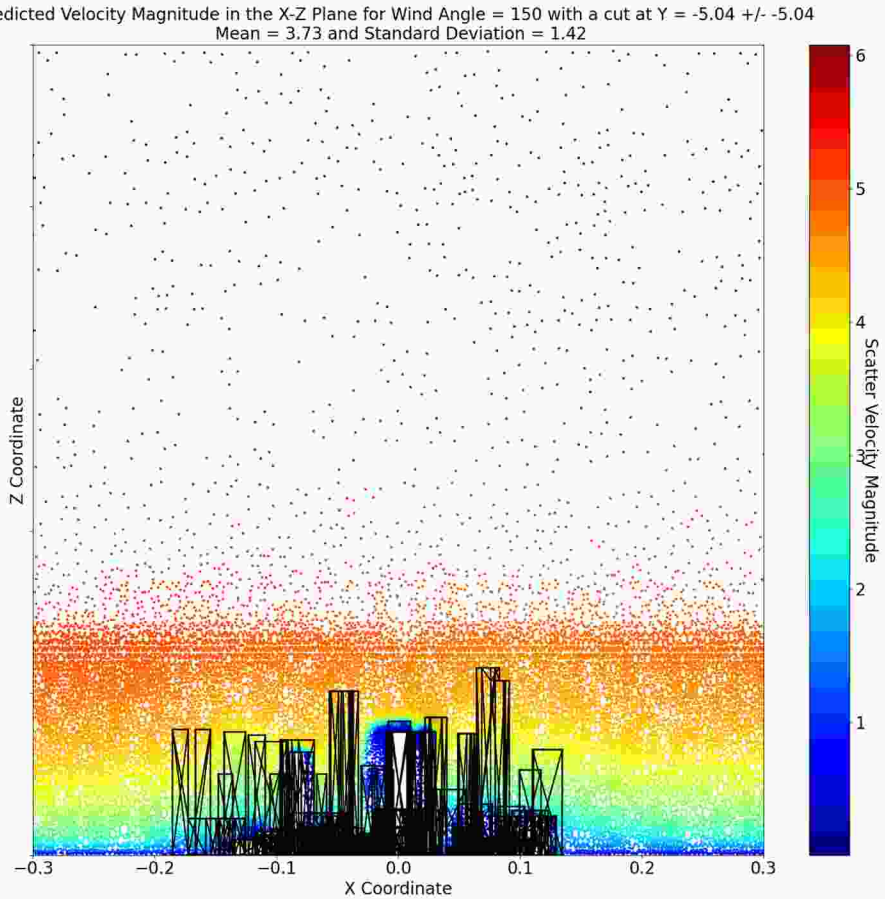
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



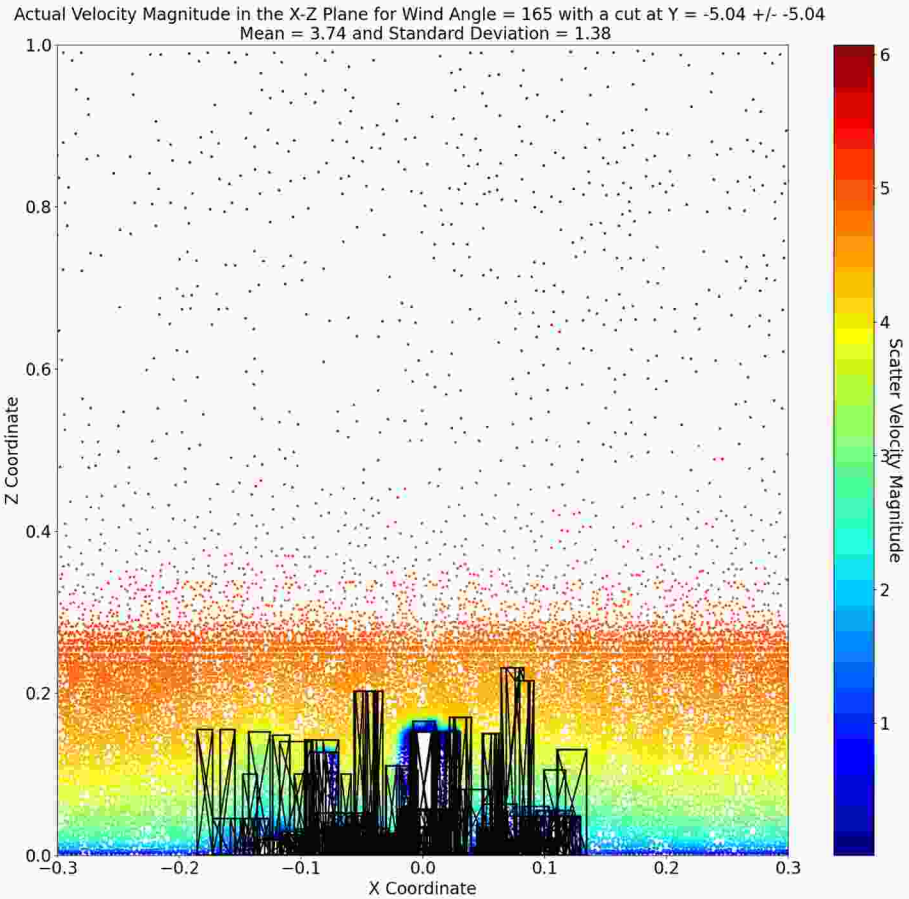


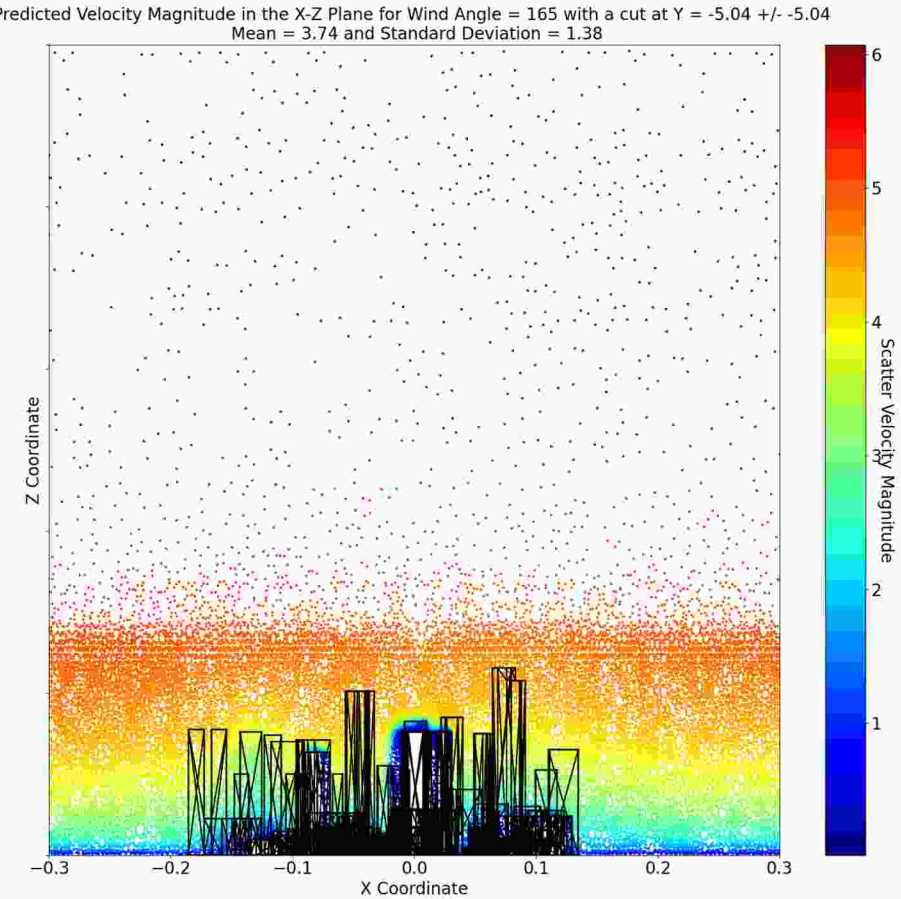
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



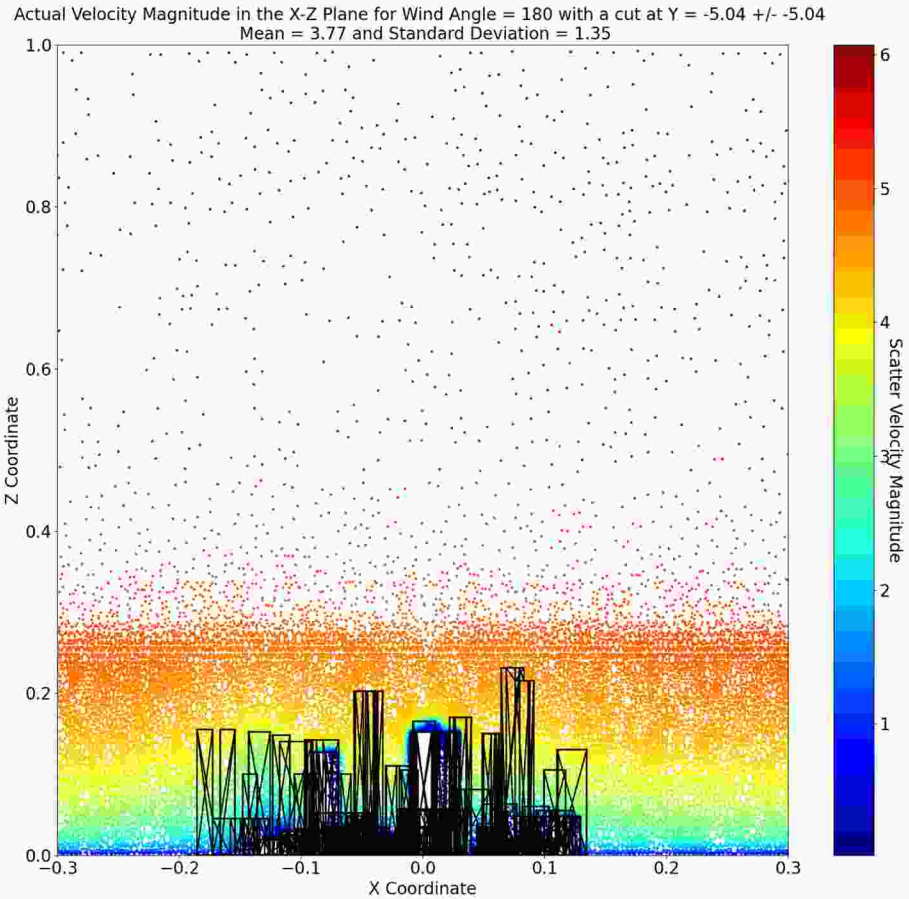


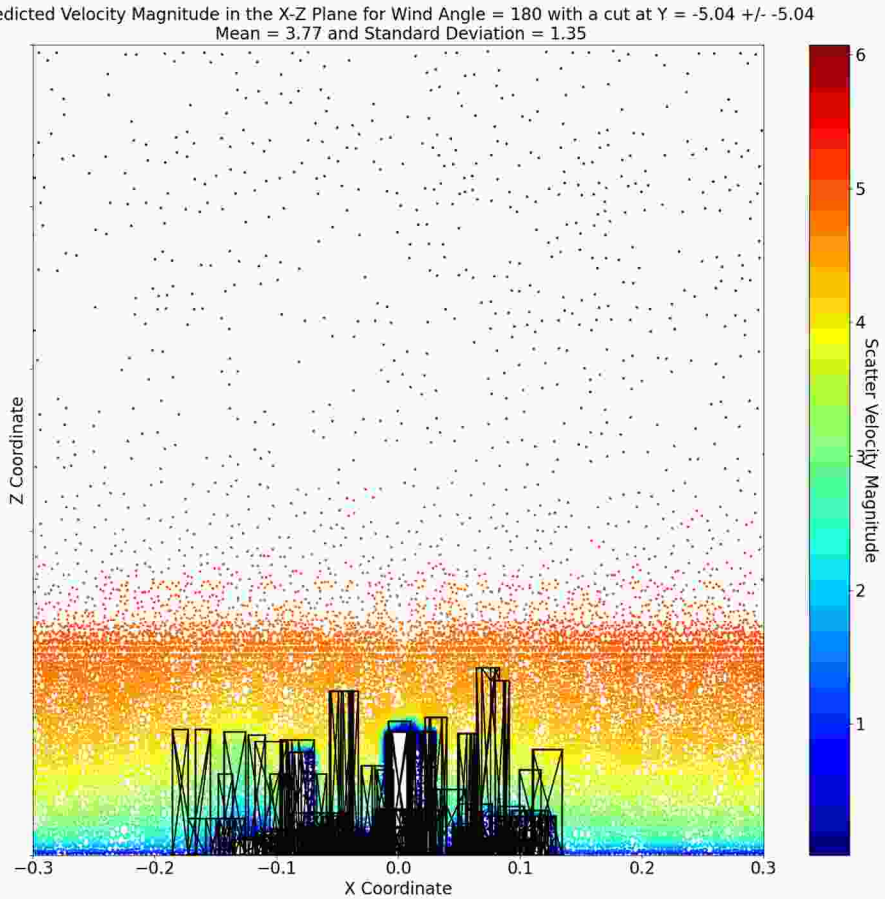
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

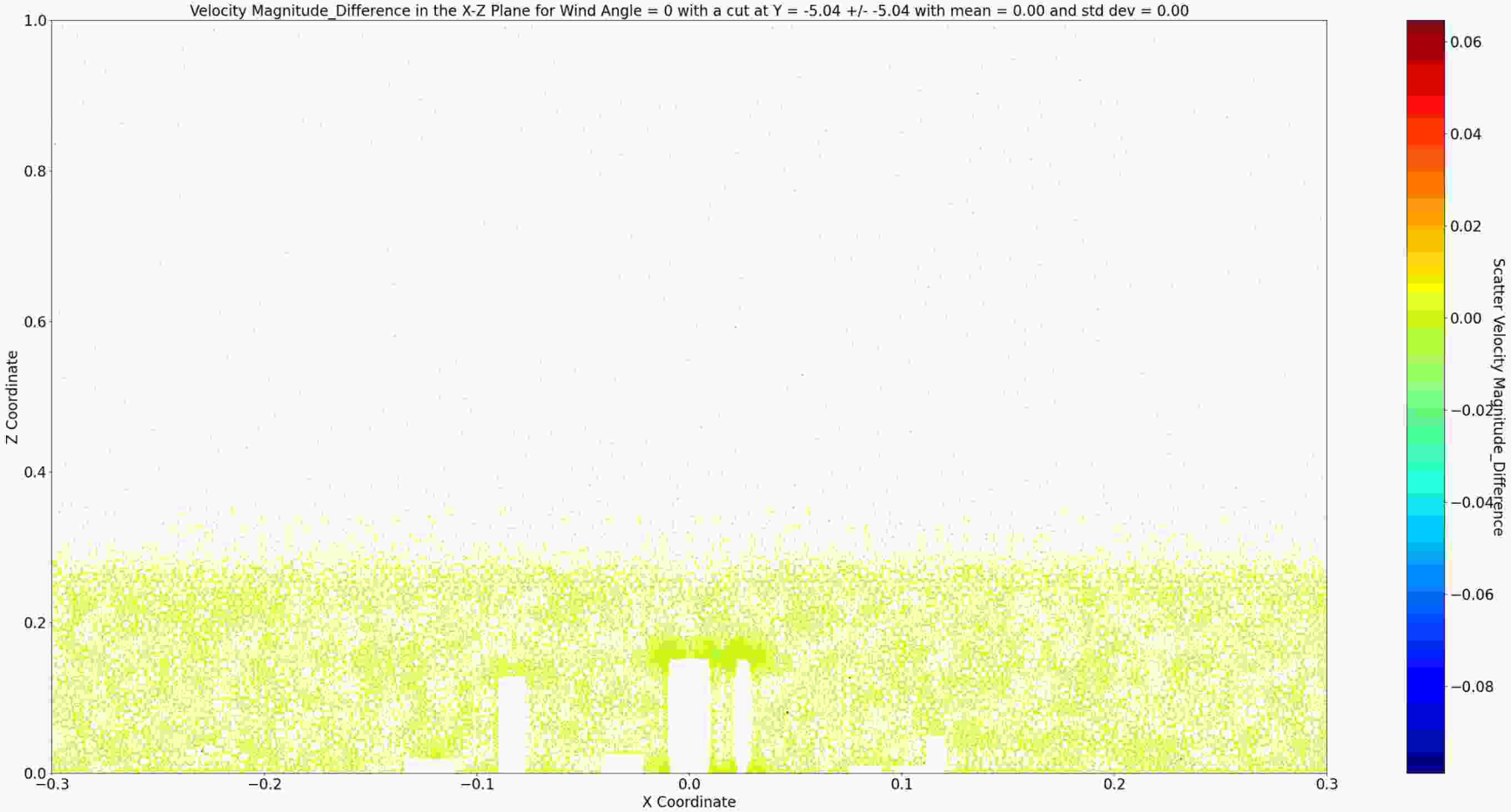


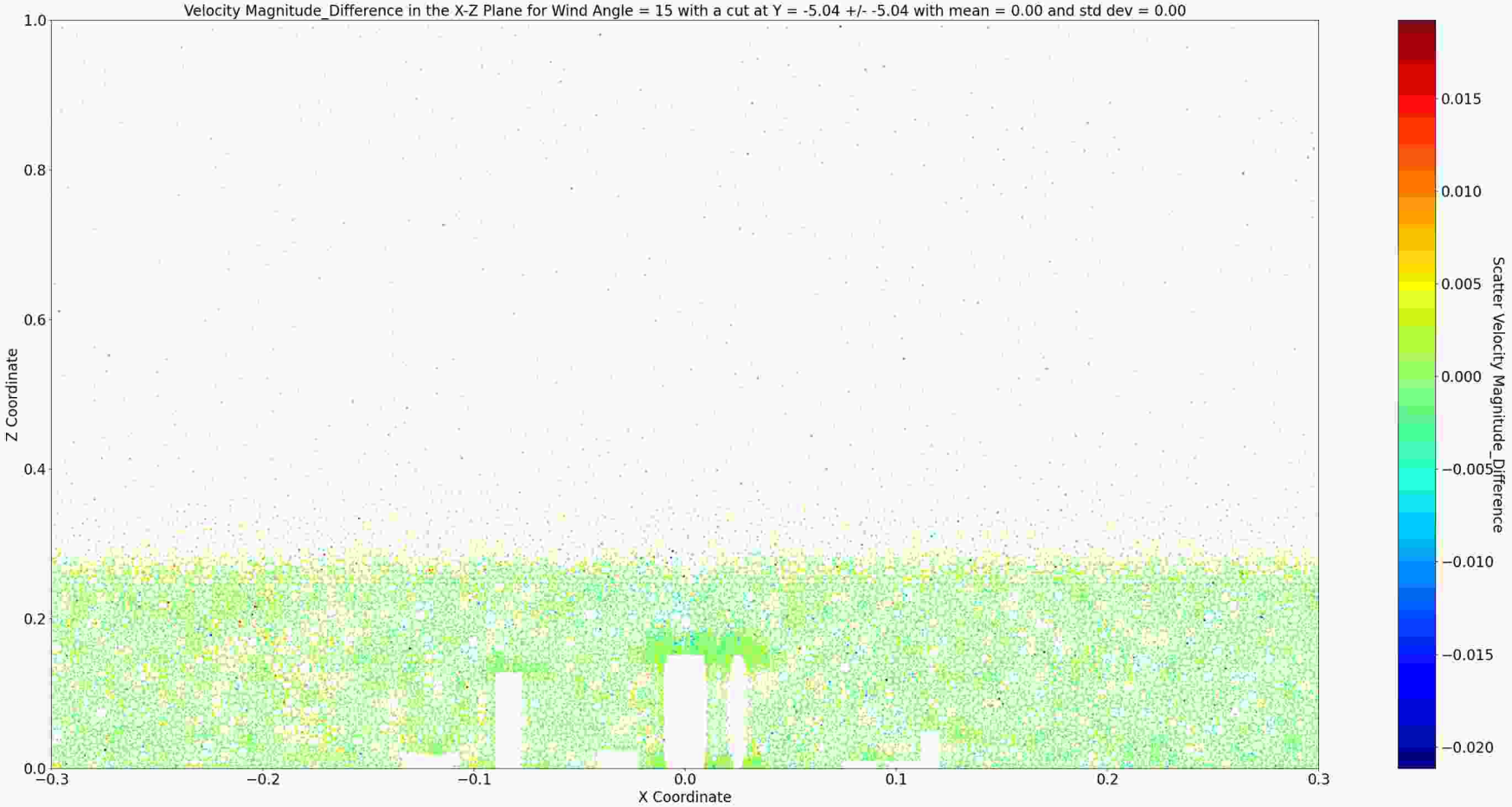


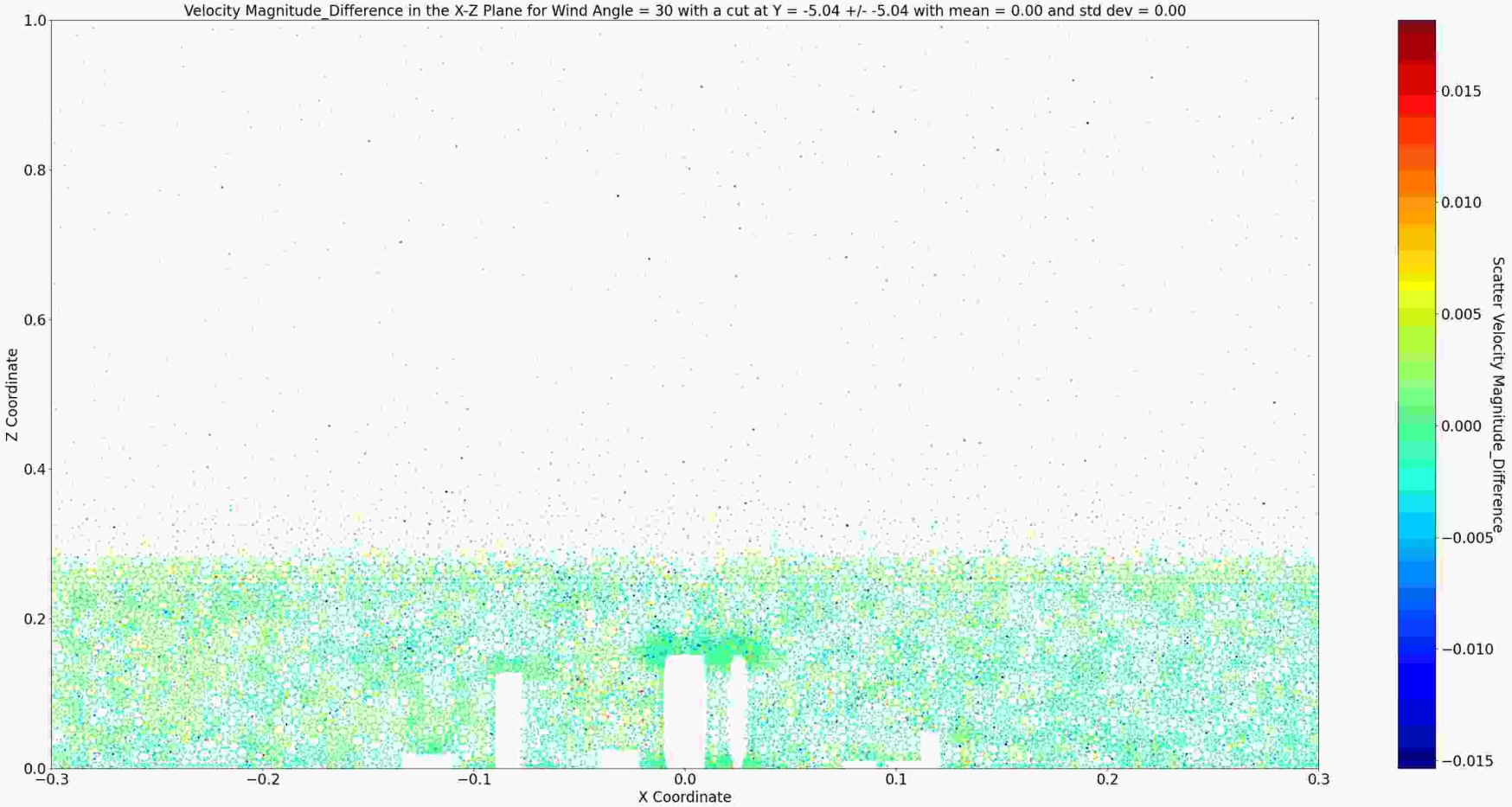
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

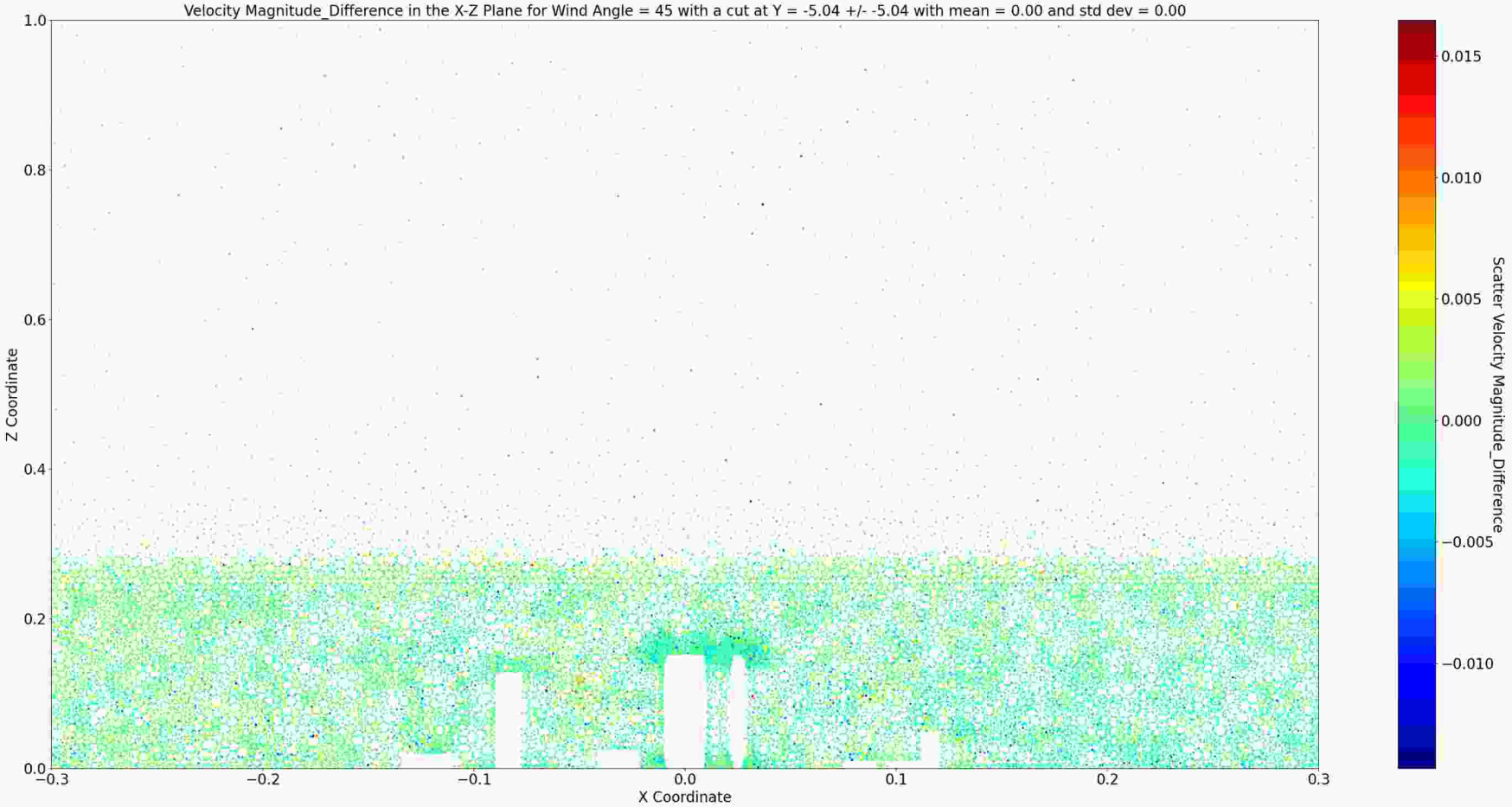


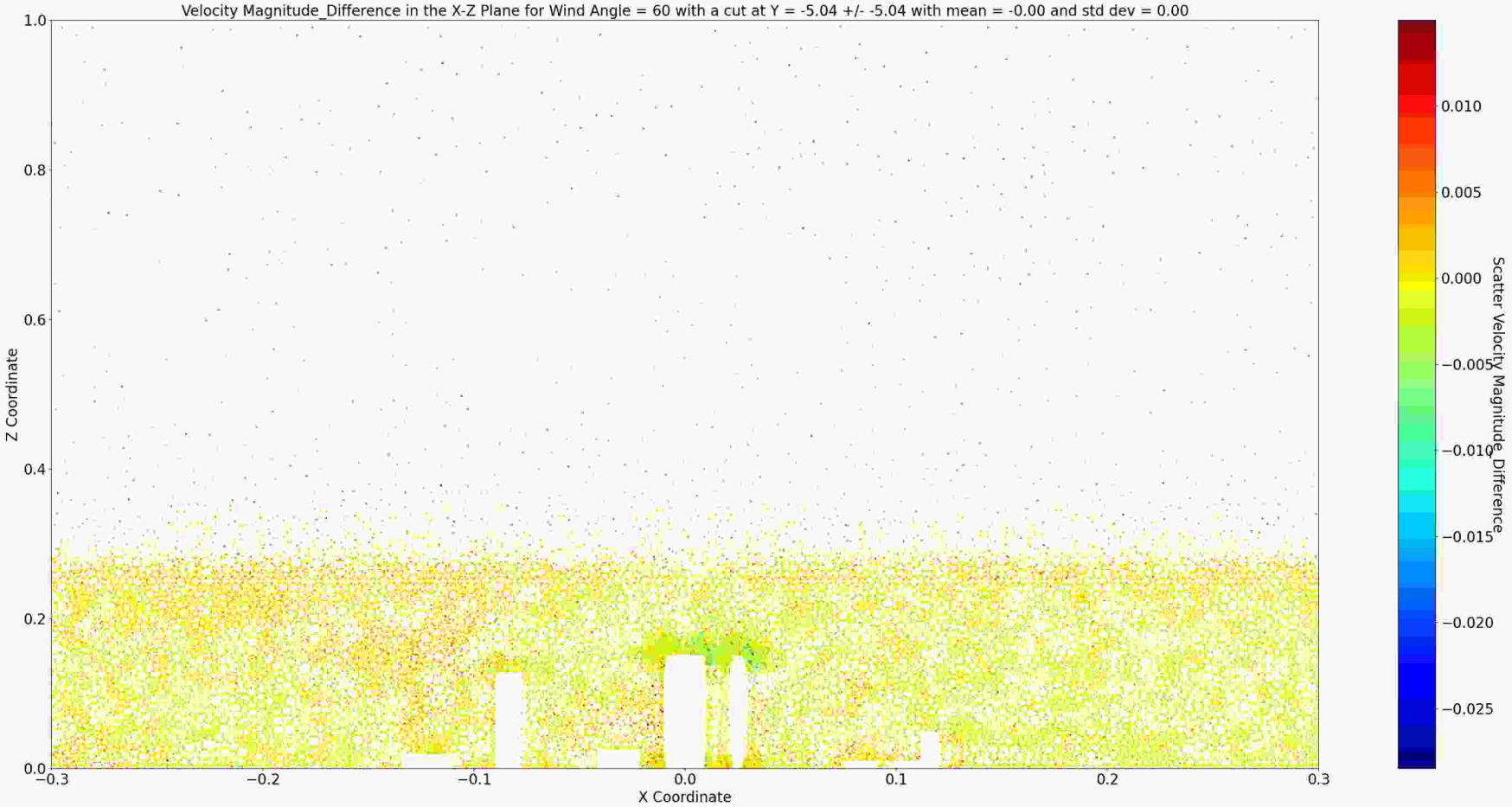


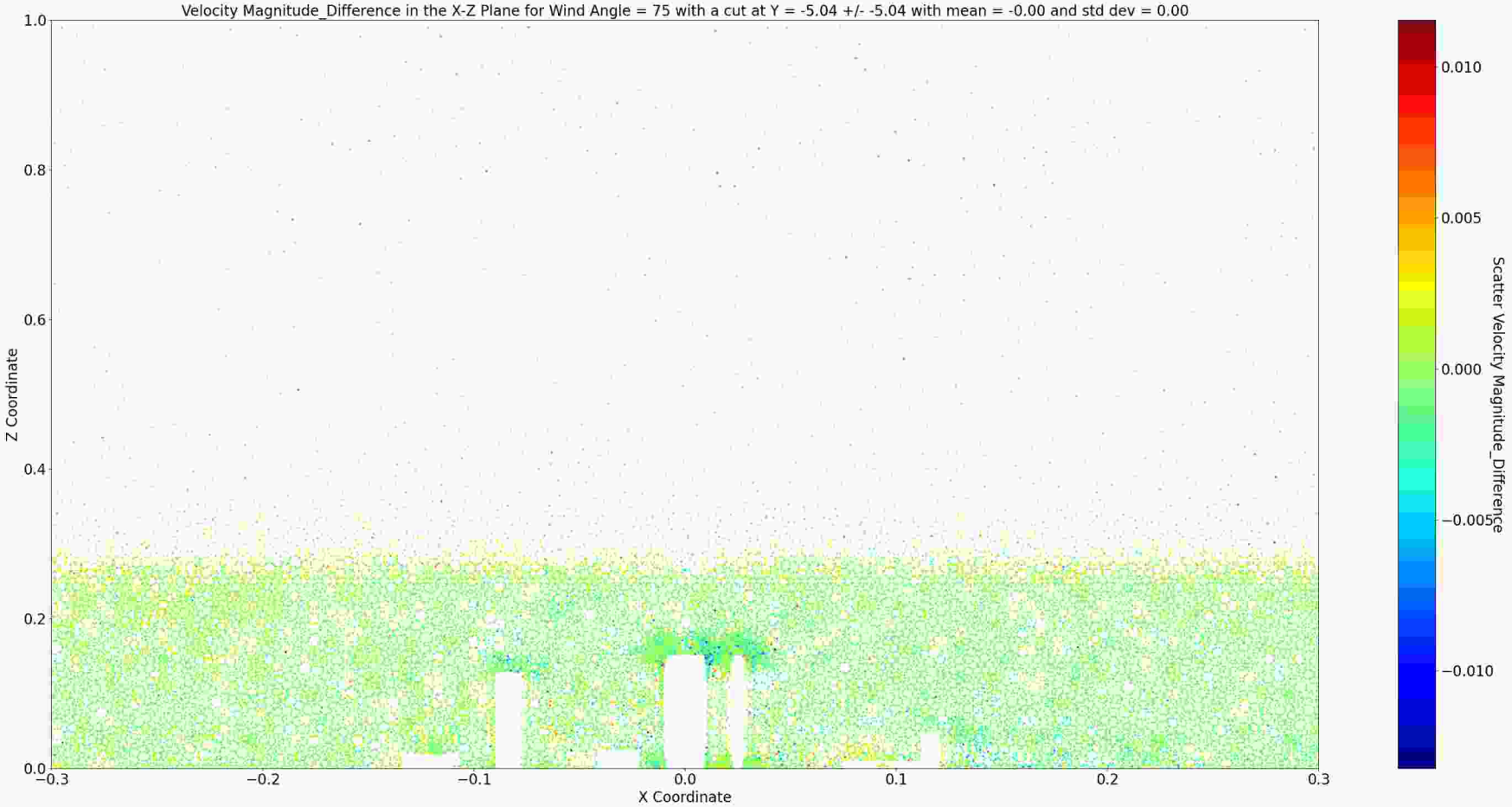

Velocity Magnitude_Difference in the X-Z Plane for Wind Angle = 0 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08

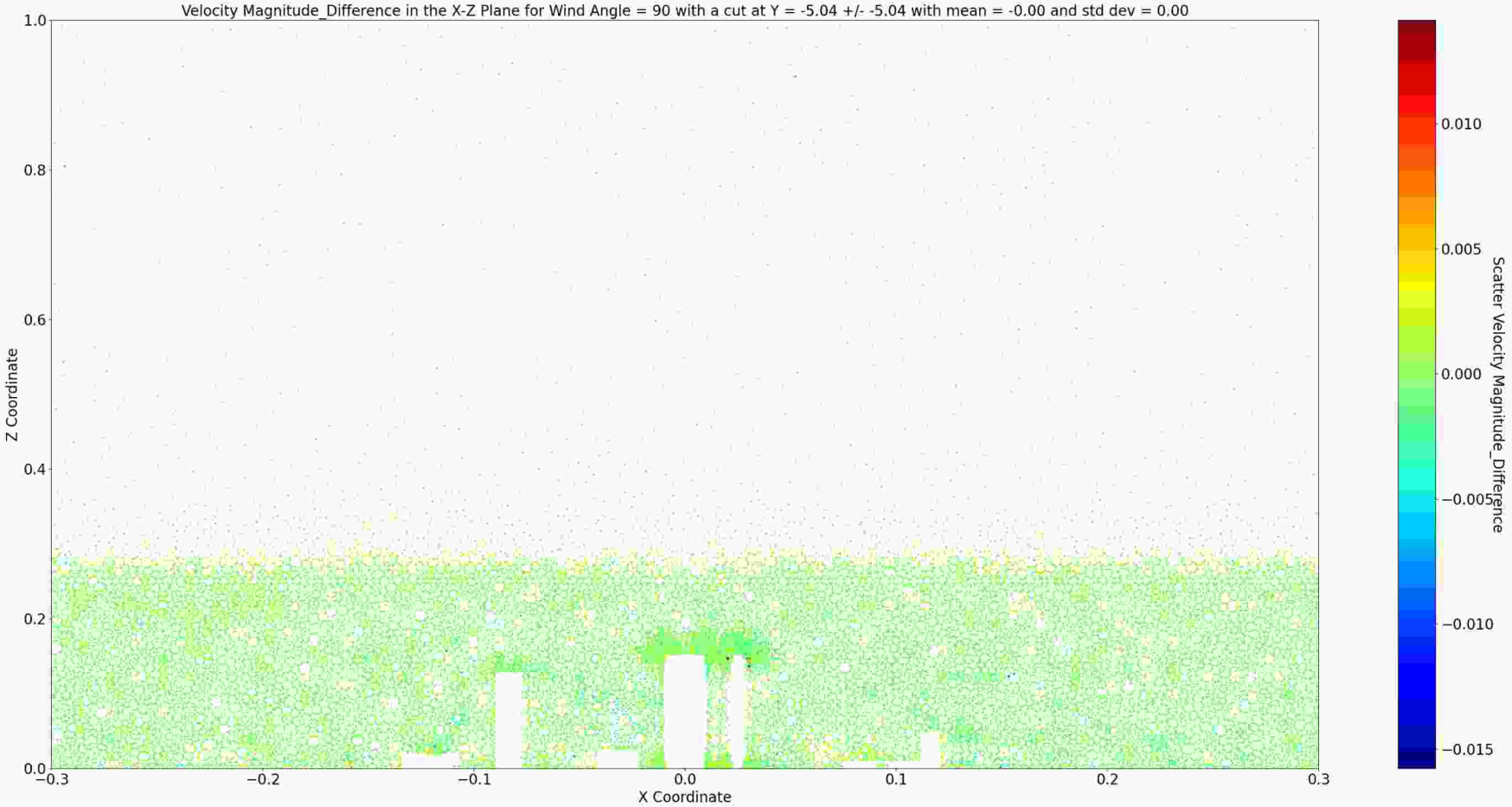

Velocity Magnitude_Difference in the X-Z Plane for Wind Angle = 15 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015
−0.020

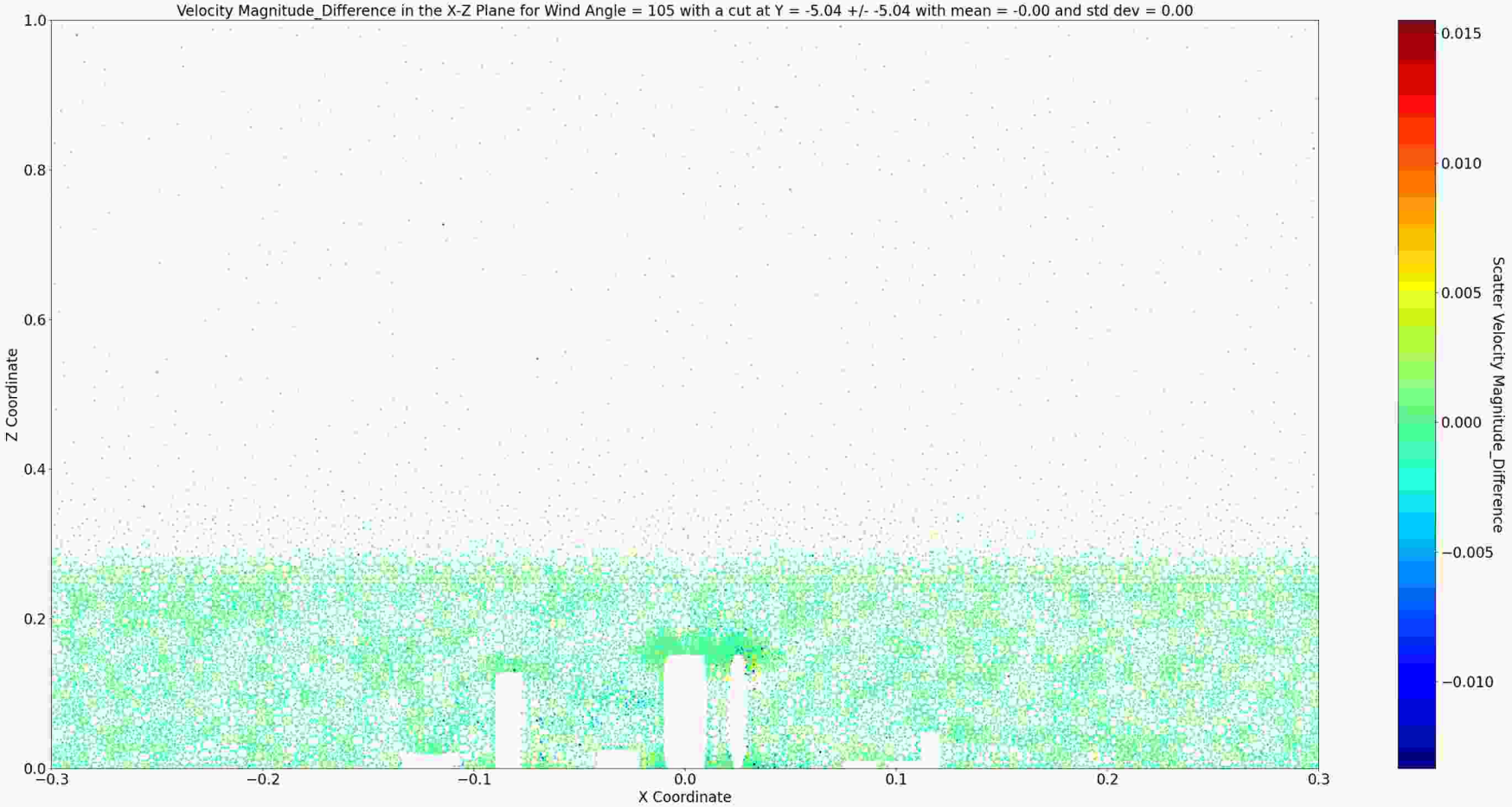

Velocity Magnitude_Difference in the X-Z Plane for Wind Angle = 30 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015

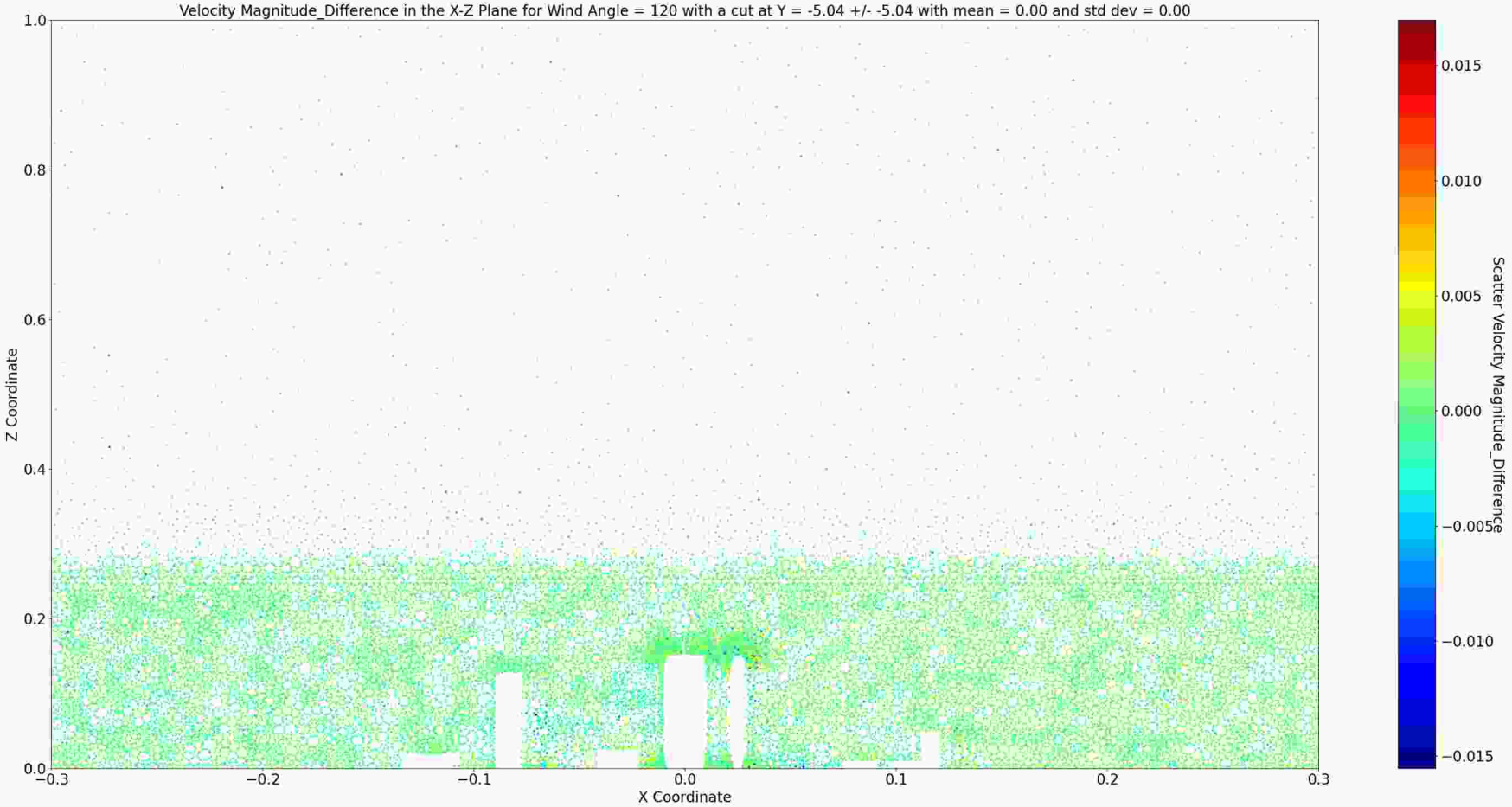

Velocity Magnitude_Difference in the X-Z Plane for Wind Angle = 45 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.015
0.010
0.005
0.000
−0.005
−0.010

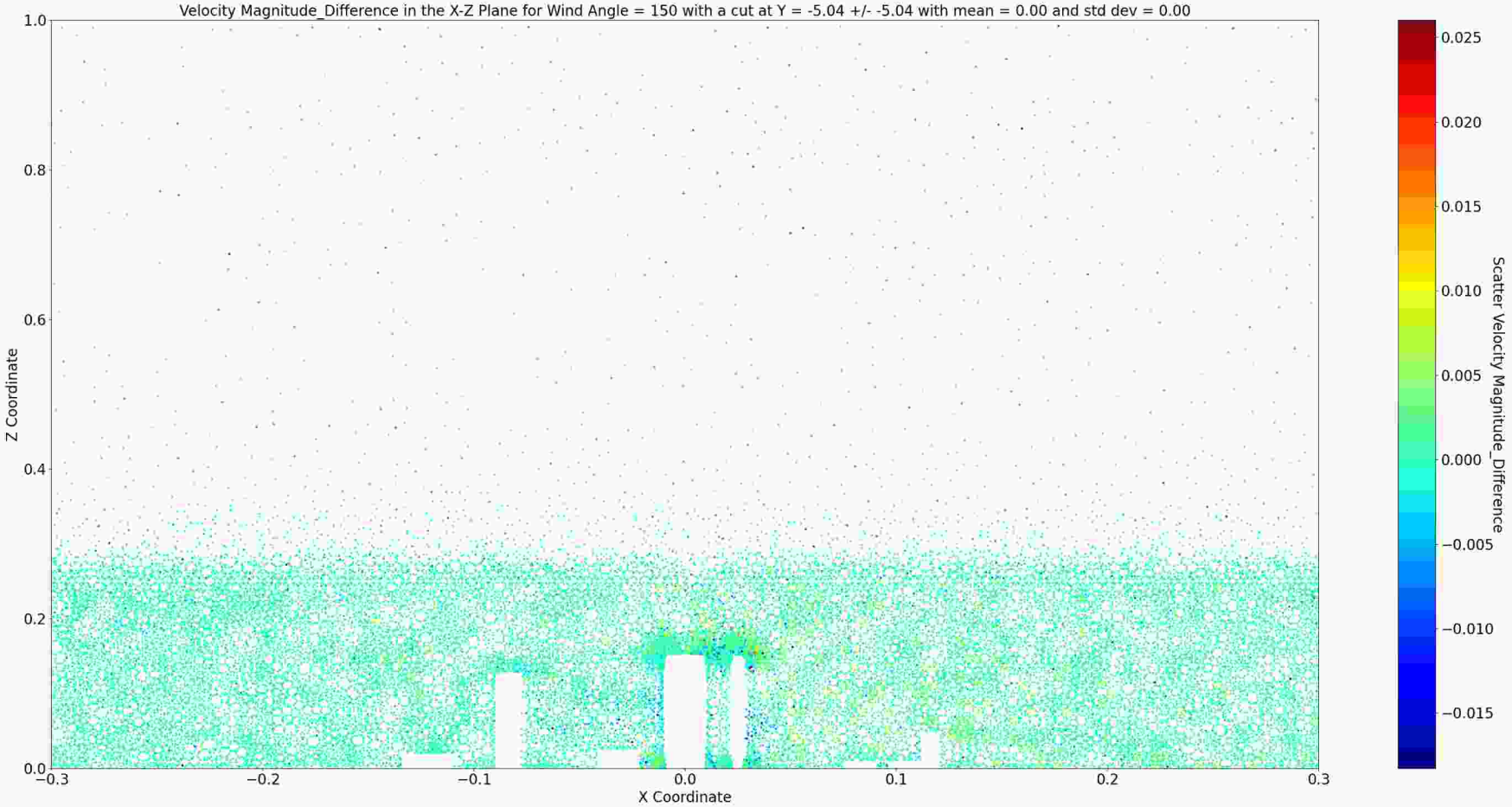

Velocity Magnitude_Difference in the X-Z Plane for Wind Angle = 60 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010
−0.015
−0.020
−0.025

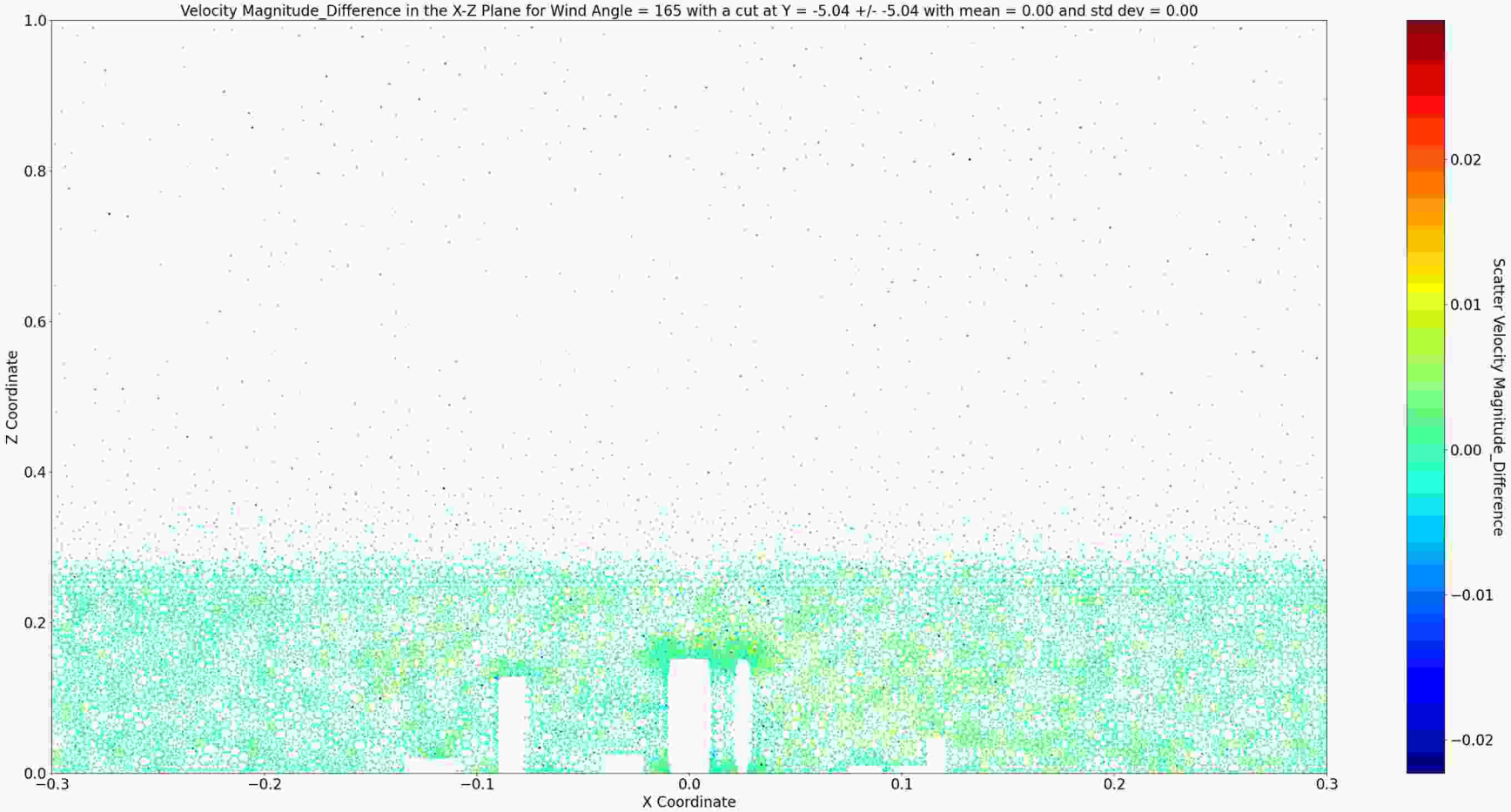

Velocity Magnitude_Difference in the X-Z Plane for Wind Angle = 75 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010

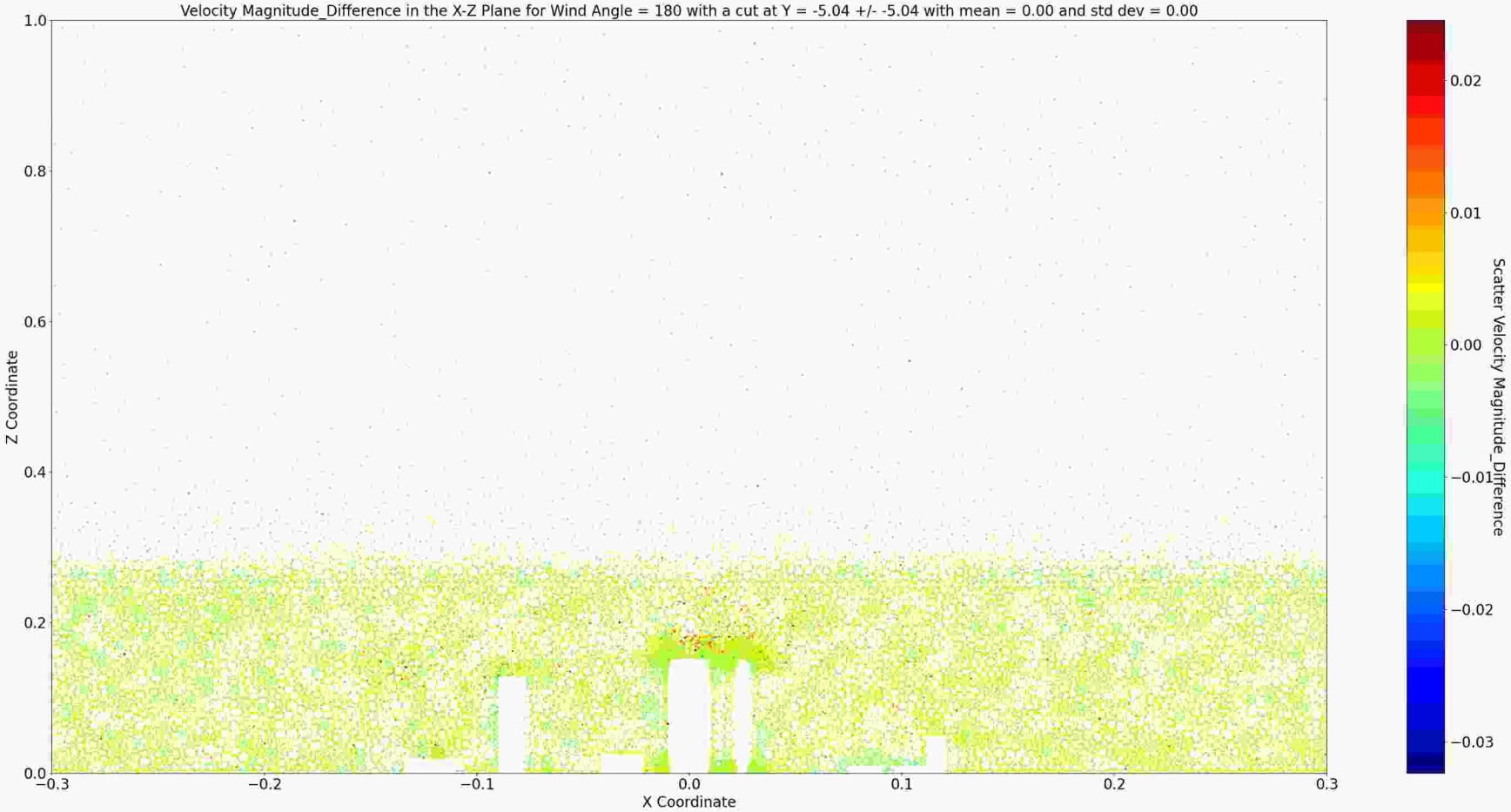

Velocity Magnitude_Difference in the X-Z Plane for Wind Angle = 90 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity Magnitude_Difference
0.010
0.005
0.000
−0.005
−0.010
−0.015

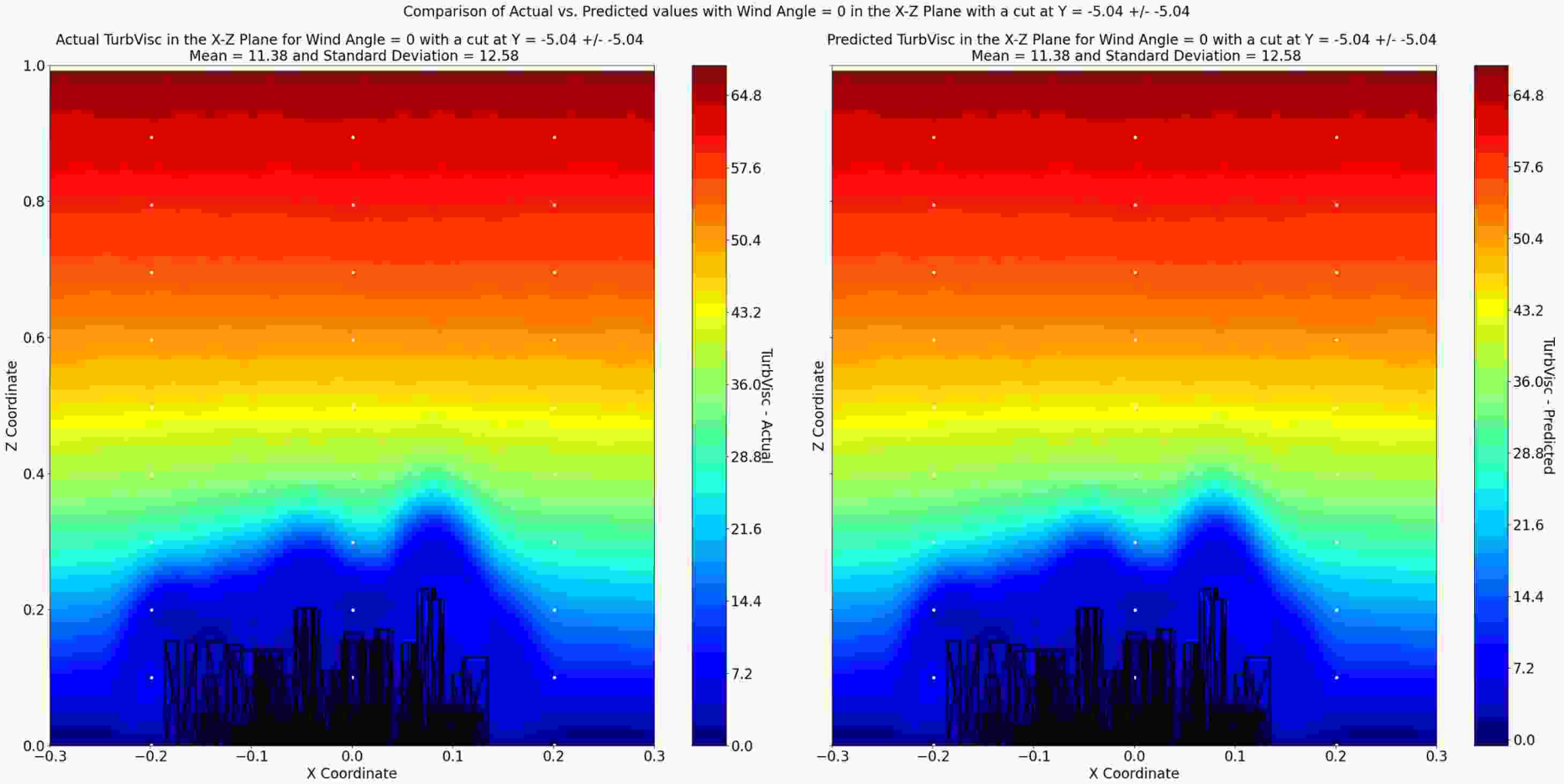

Velocity Magnitude_Difference in the X-Z Plane for Wind Angle = 105 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.015
0.010
0.005
0.000
−0.005
−0.010


Velocity Magnitude_Difference in the X-Z Plane for Wind Angle = 120 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015

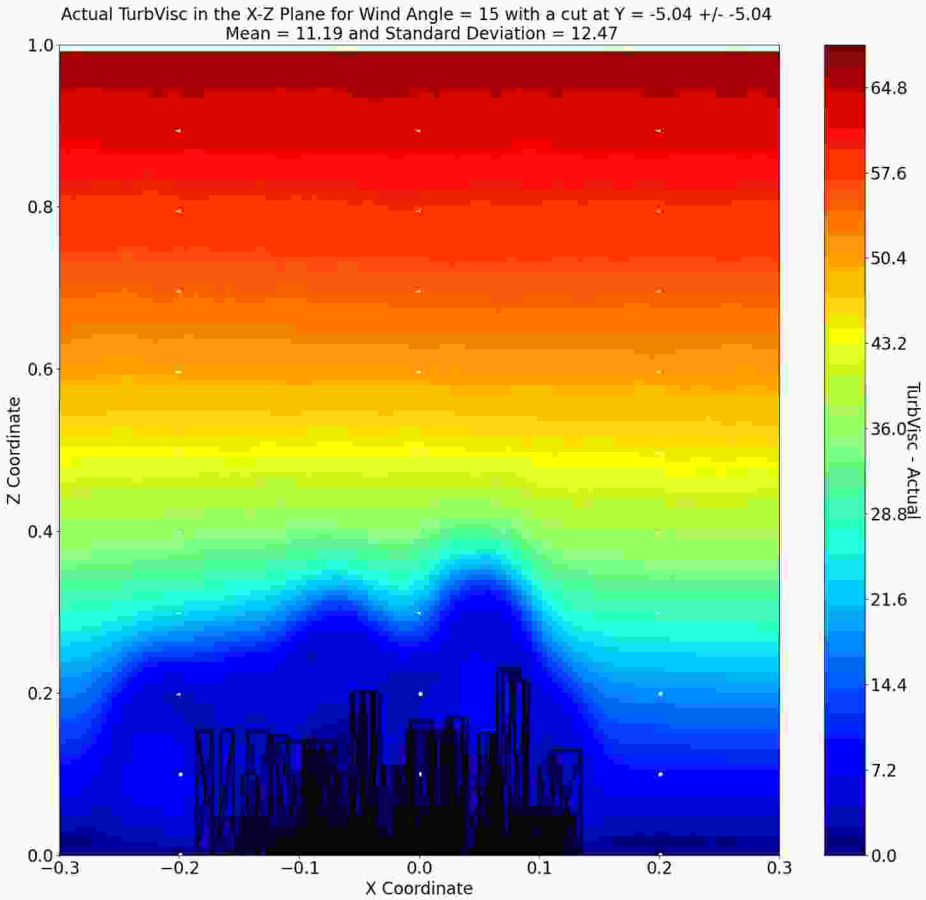

Velocity Magnitude_Difference in the X-Z Plane for Wind Angle = 150 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.025
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015

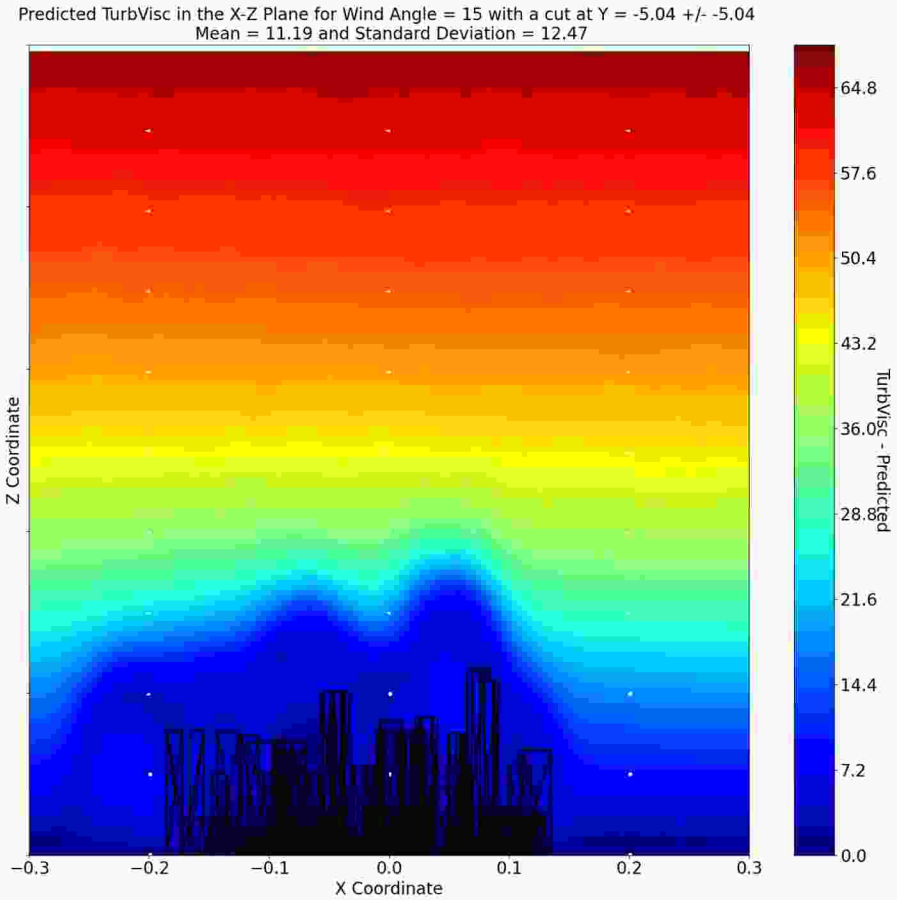

Velocity Magnitude_Difference in the X-Z Plane for Wind Angle = 165 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity Magnitude_Difference
0.02
0.01
0.00
−0.01
−0.02

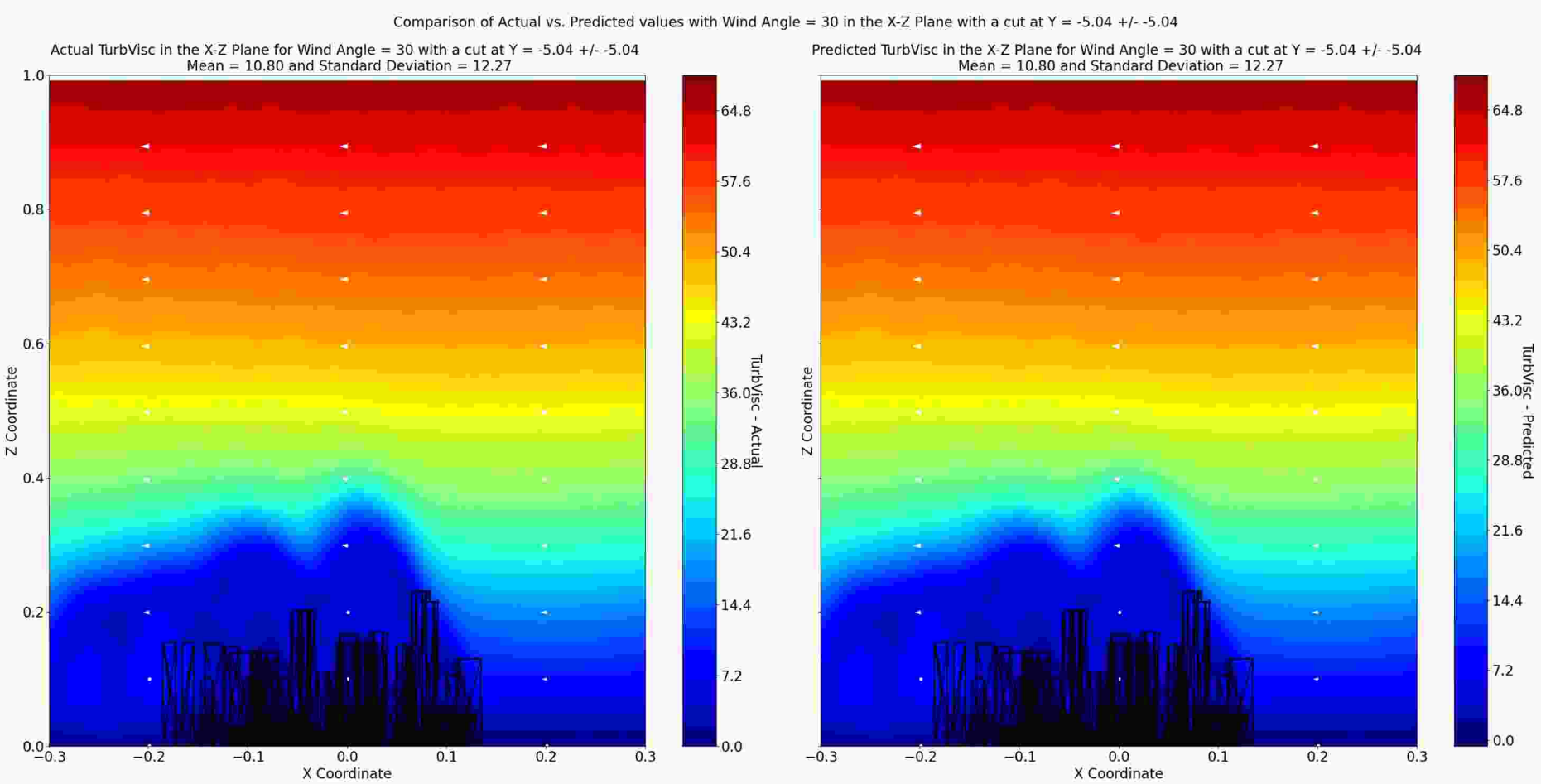

Velocity Magnitude_Difference in the X-Z Plane for Wind Angle = 180 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.02
0.01
0.00
−0.01
−0.02
−0.03


Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04
Actual TurbVisc in the X-Z Plane for Wind Angle = 0 with a cut at Y = -5.04 +/- -5.04
Mean = 11.38 and Standard Deviation = 12.58
Predicted TurbVisc in the X-Z Plane for Wind Angle = 0 with a cut at Y = -5.04 +/- -5.04
Mean = 11.38 and Standard Deviation = 12.58
Z Coordinate
X Coordinate
TurbVisc - Actual
TurbVisc - Predicted
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
64.8
57.6
50.4
43.2
36.0
28.8
21.6
14.4
7.2
0.0

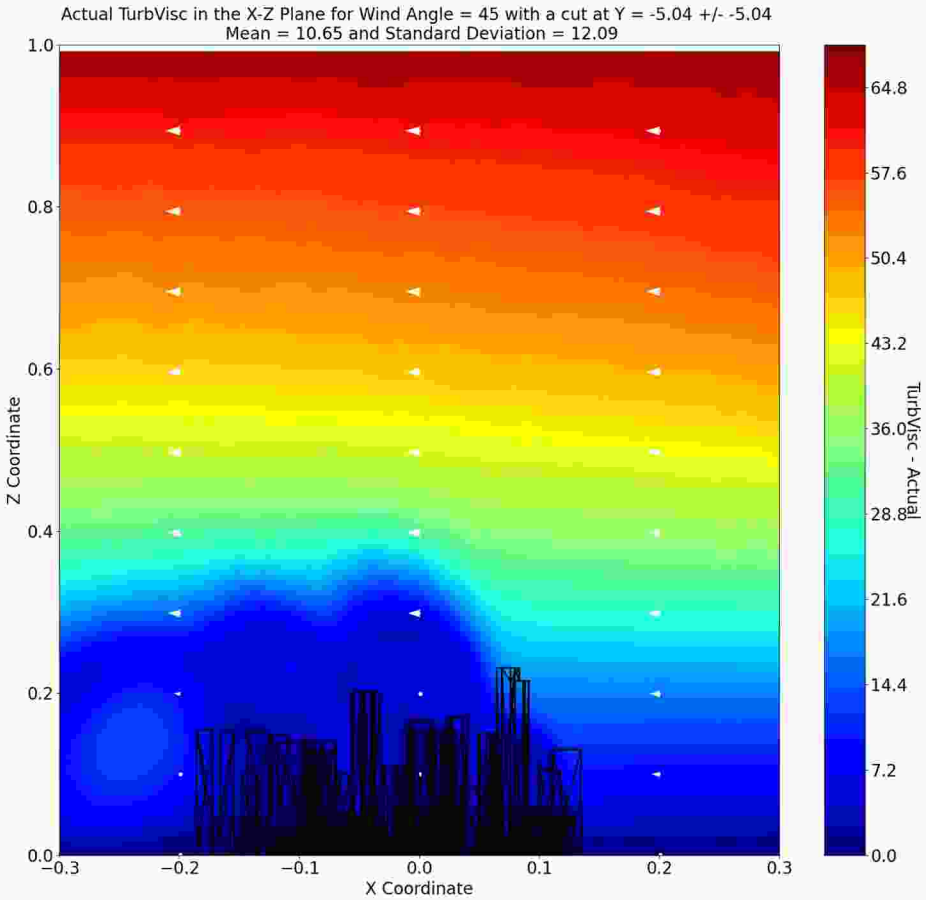
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

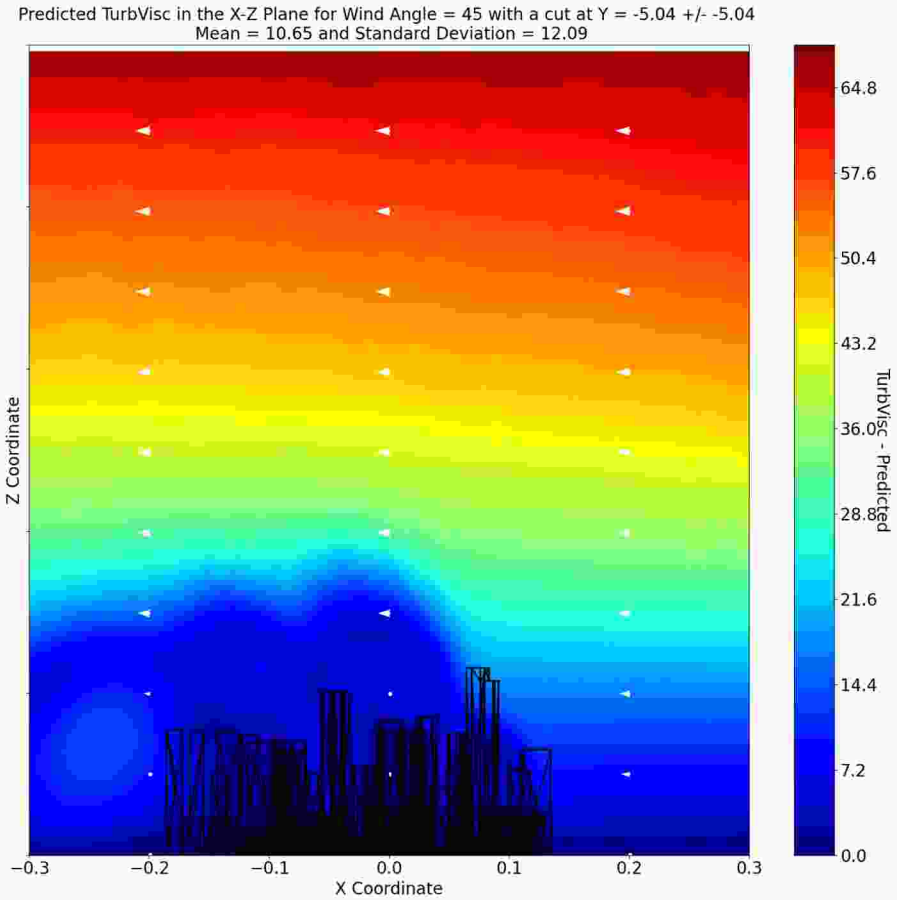




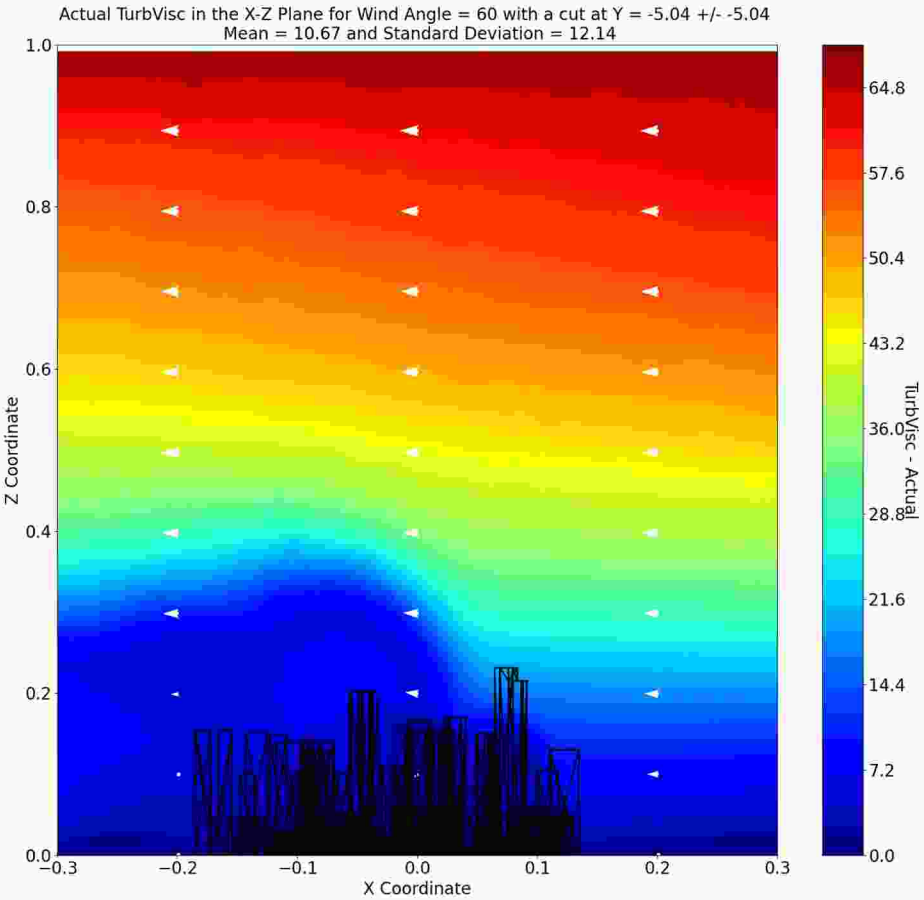

Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04
Actual TurbVisc in the X-Z Plane for Wind Angle = 30 with a cut at Y = -5.04 +/- -5.04
Mean = 10.80 and Standard Deviation = 12.27
Predicted TurbVisc in the X-Z Plane for Wind Angle = 30 with a cut at Y = -5.04 +/- -5.04
Mean = 10.80 and Standard Deviation = 12.27
Z Coordinate
X Coordinate
TurbVisc - Actual
TurbVisc - Predicted
0.0
7.2
14.4
21.6
28.8
36.0
43.2
50.4
57.6
64.8
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.2
0.4
0.6
0.8
1.0

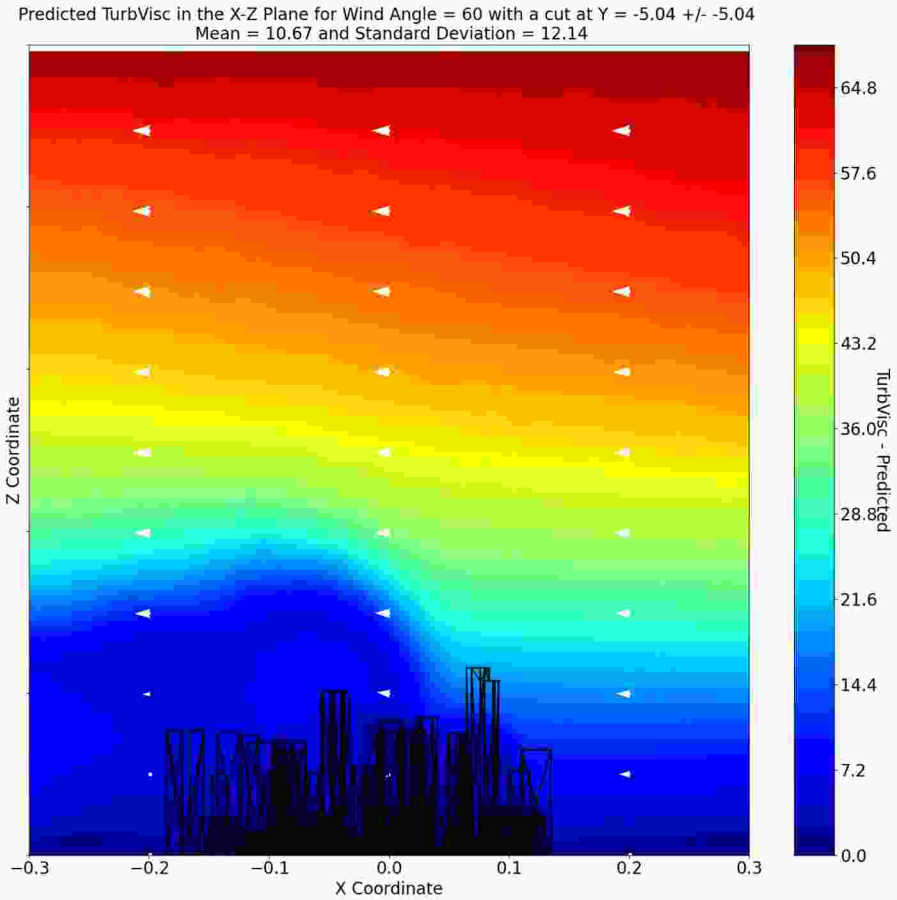
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



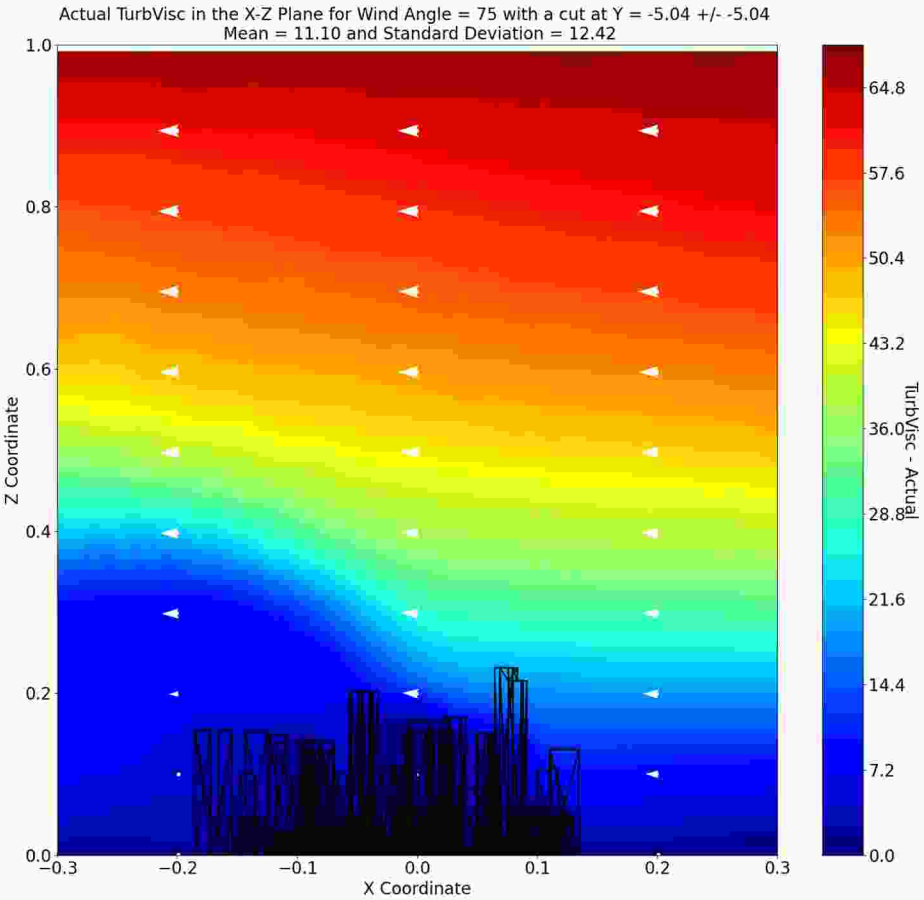


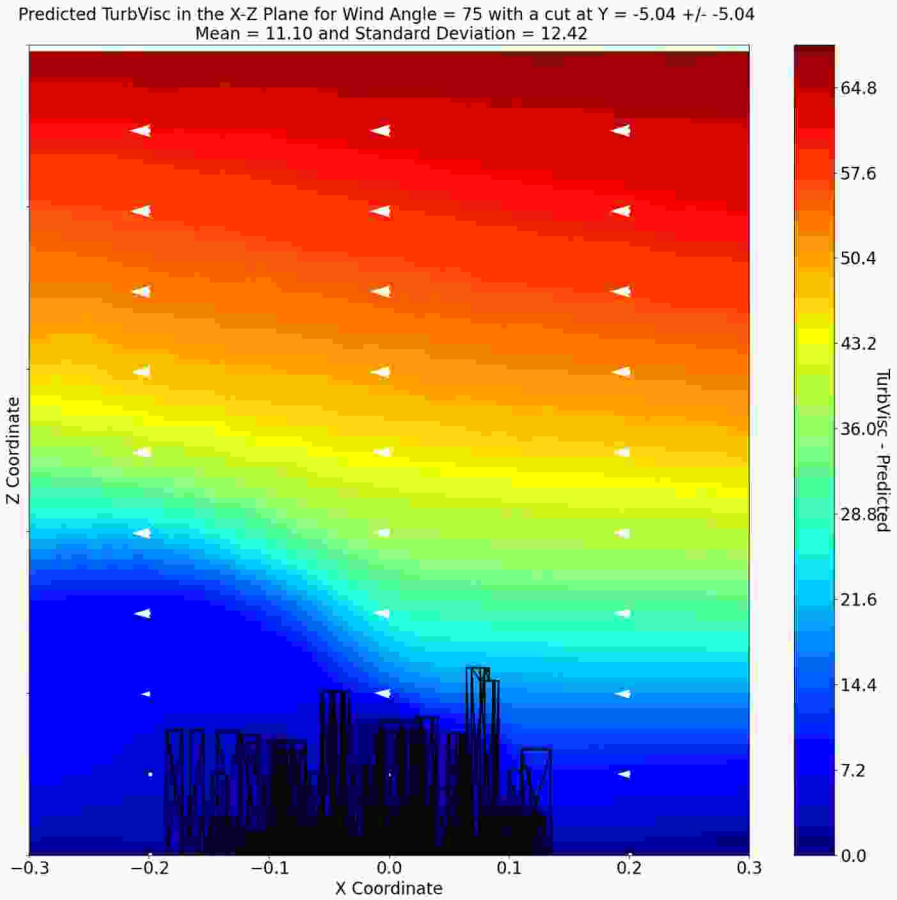
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



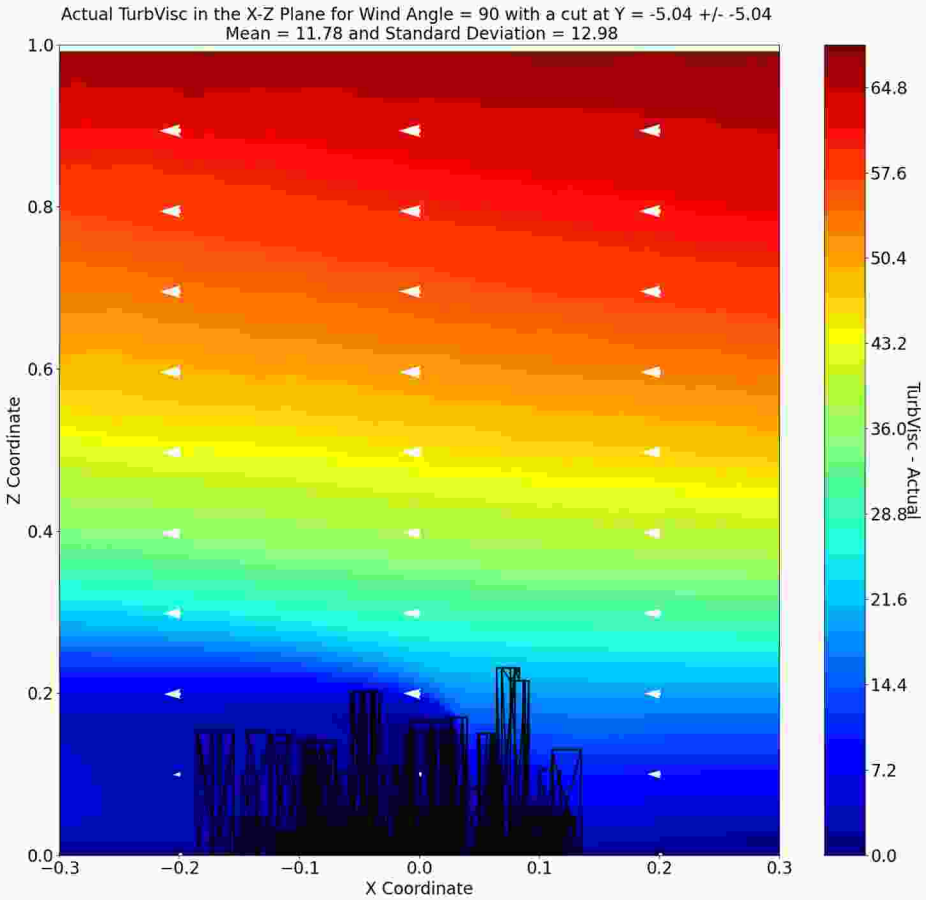


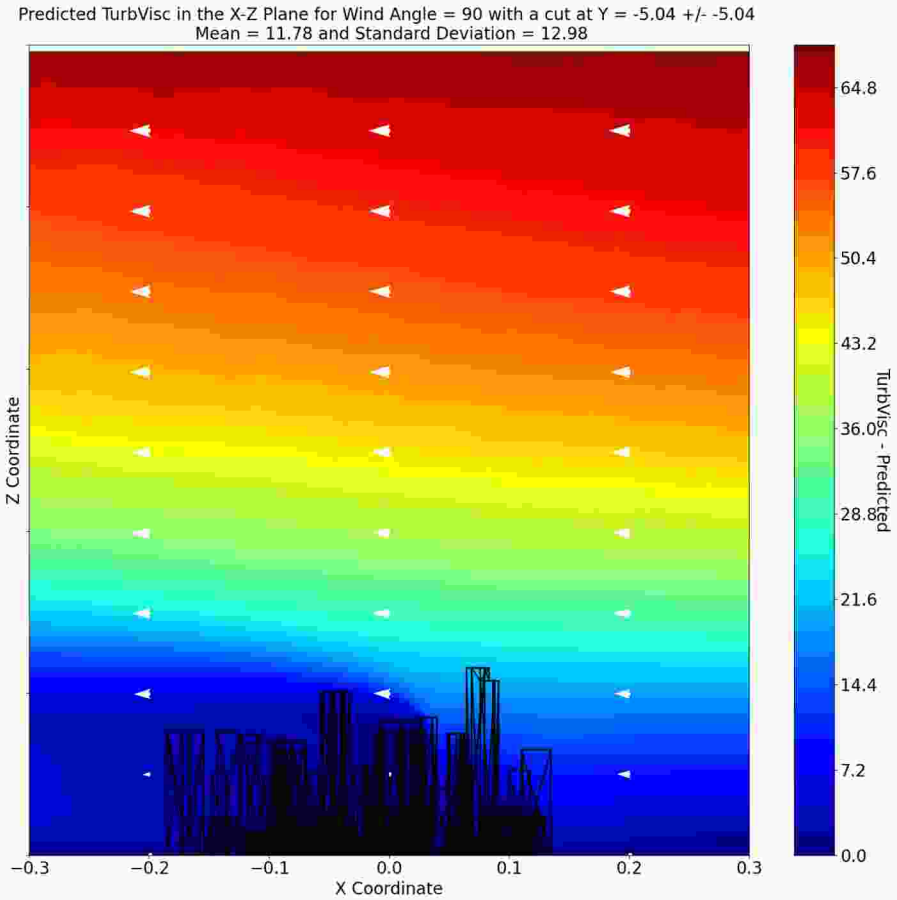
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



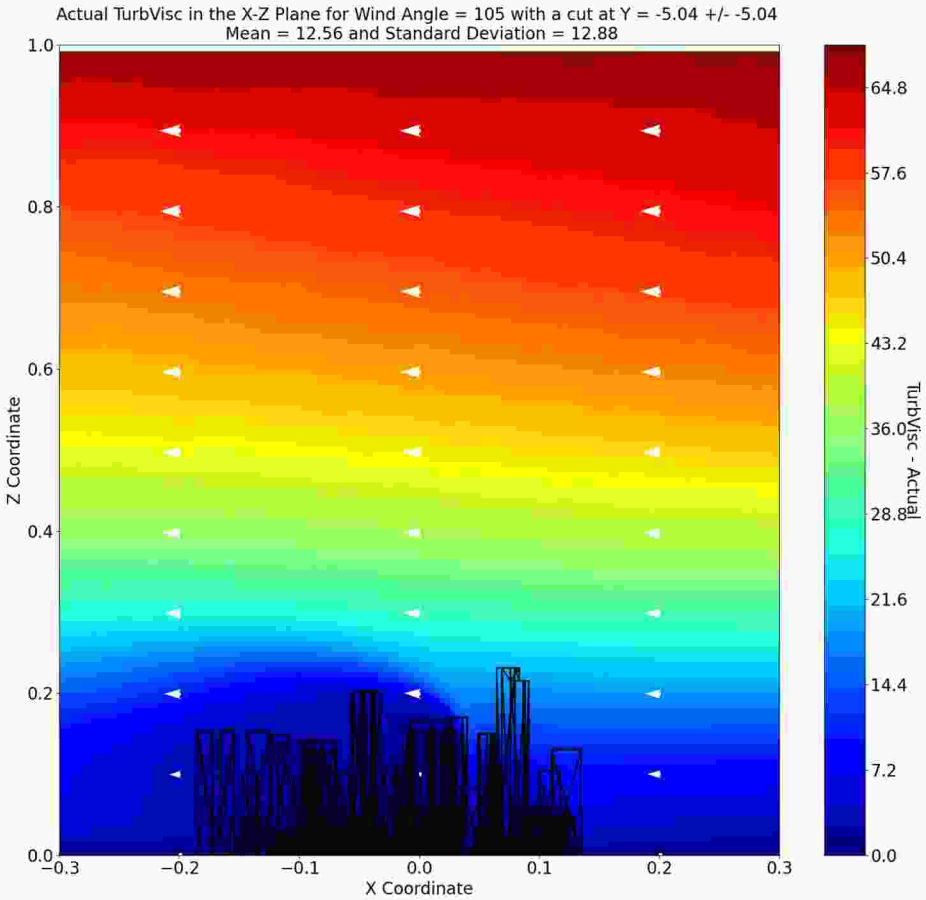


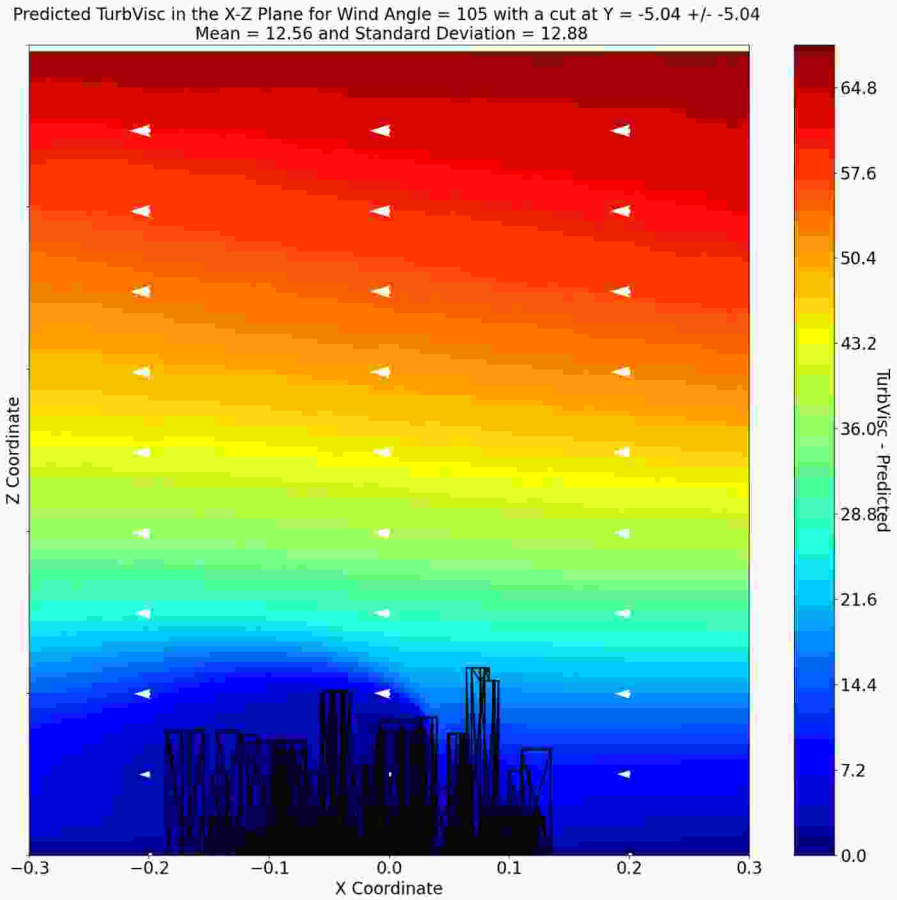
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



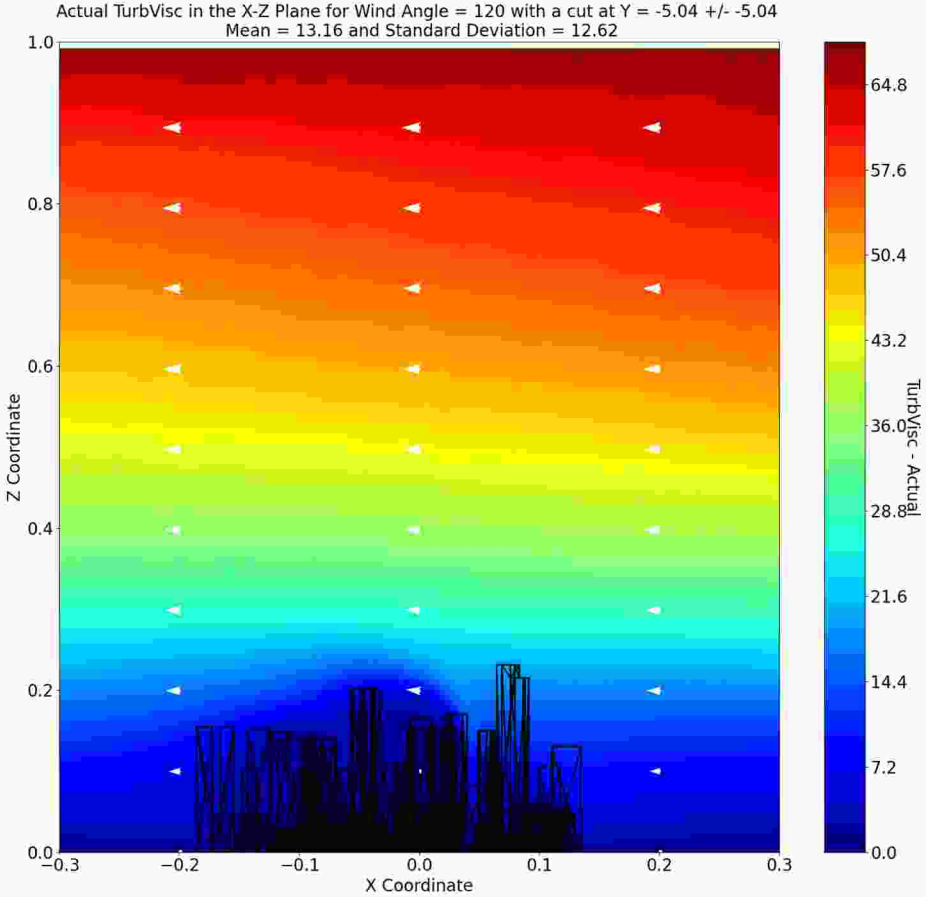


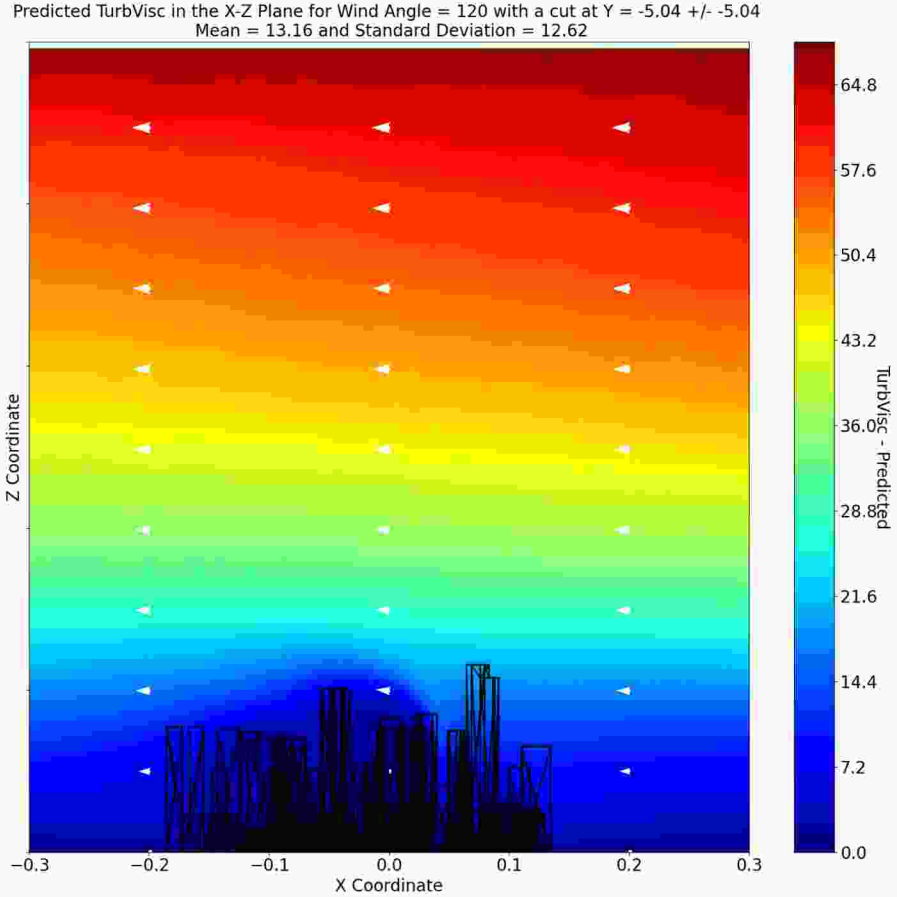
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



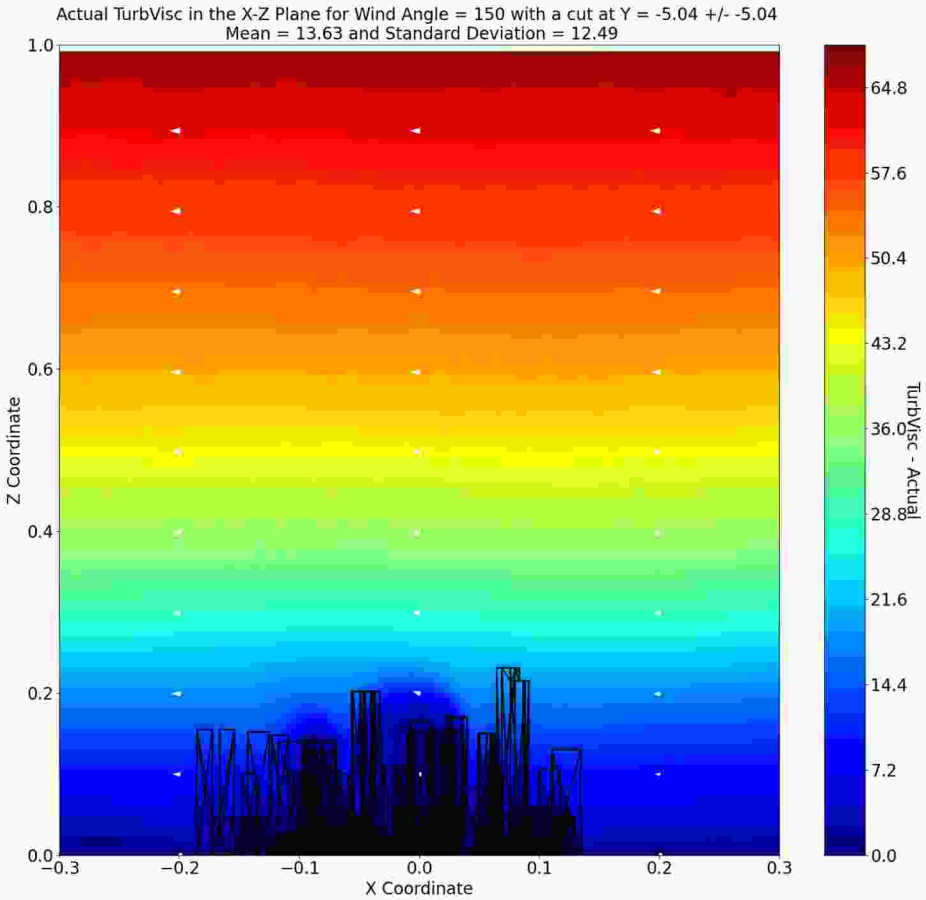


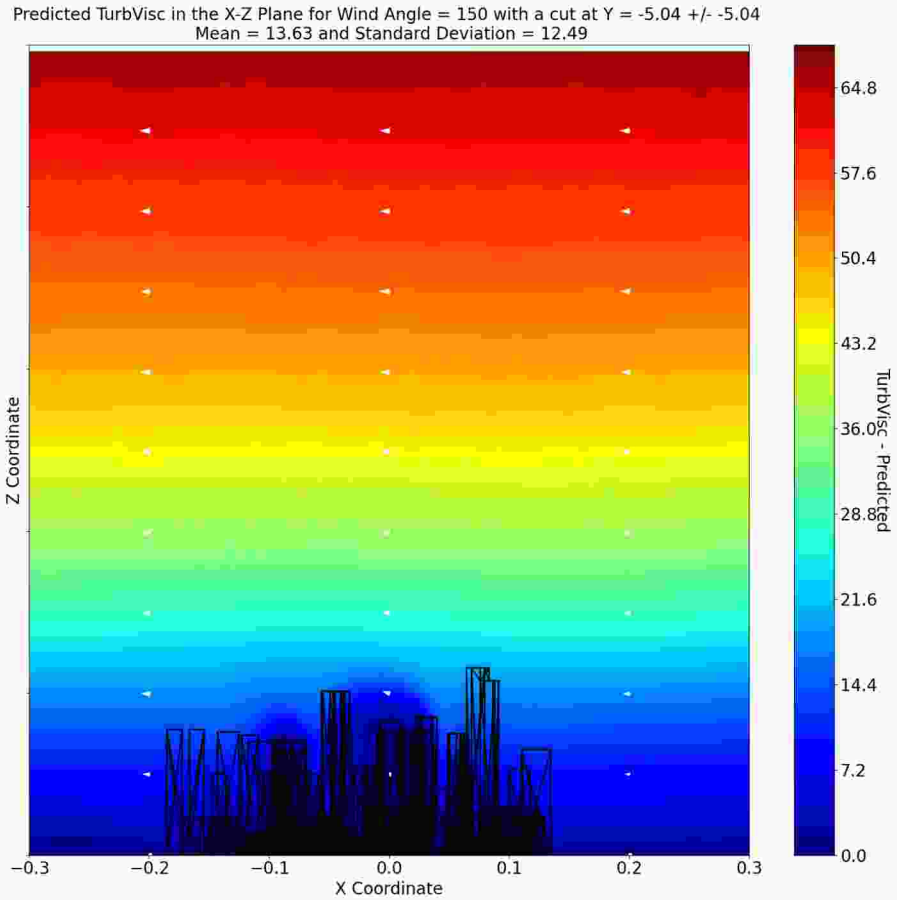
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



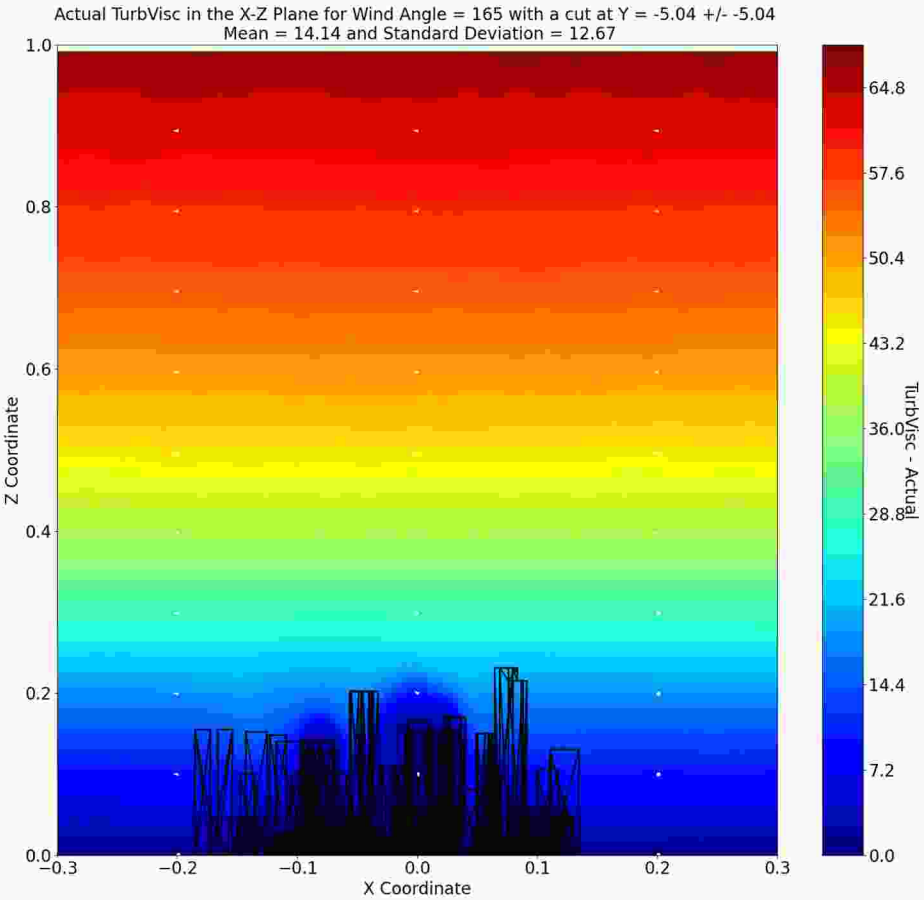


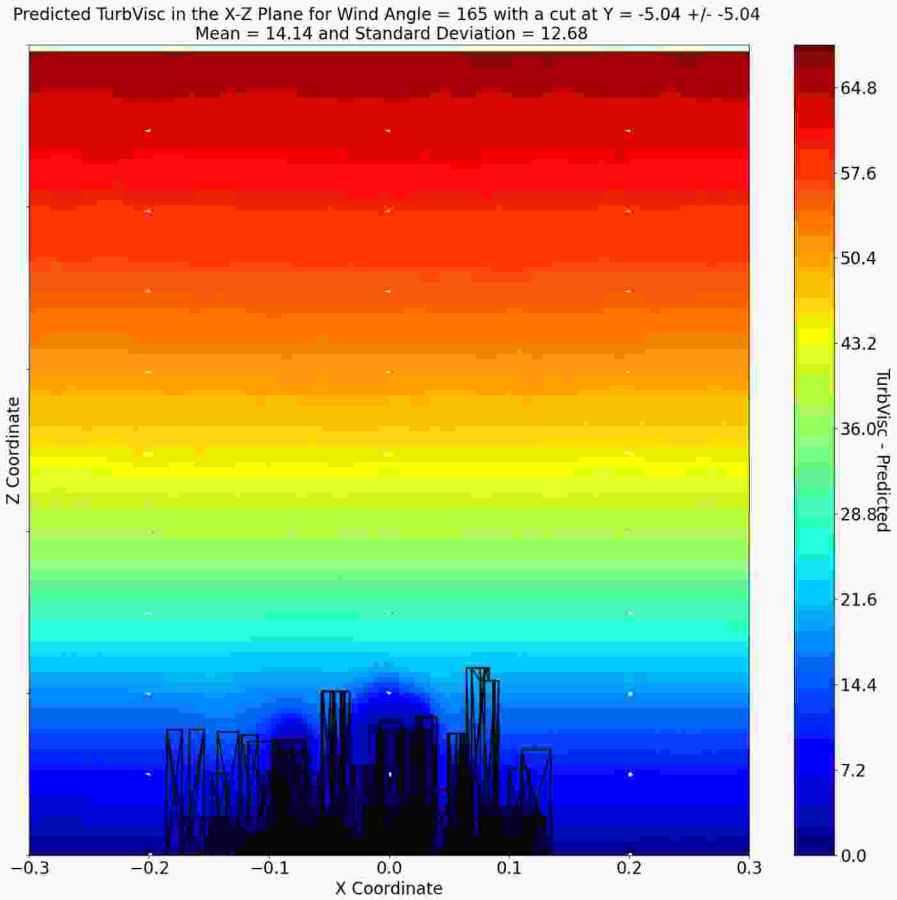
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



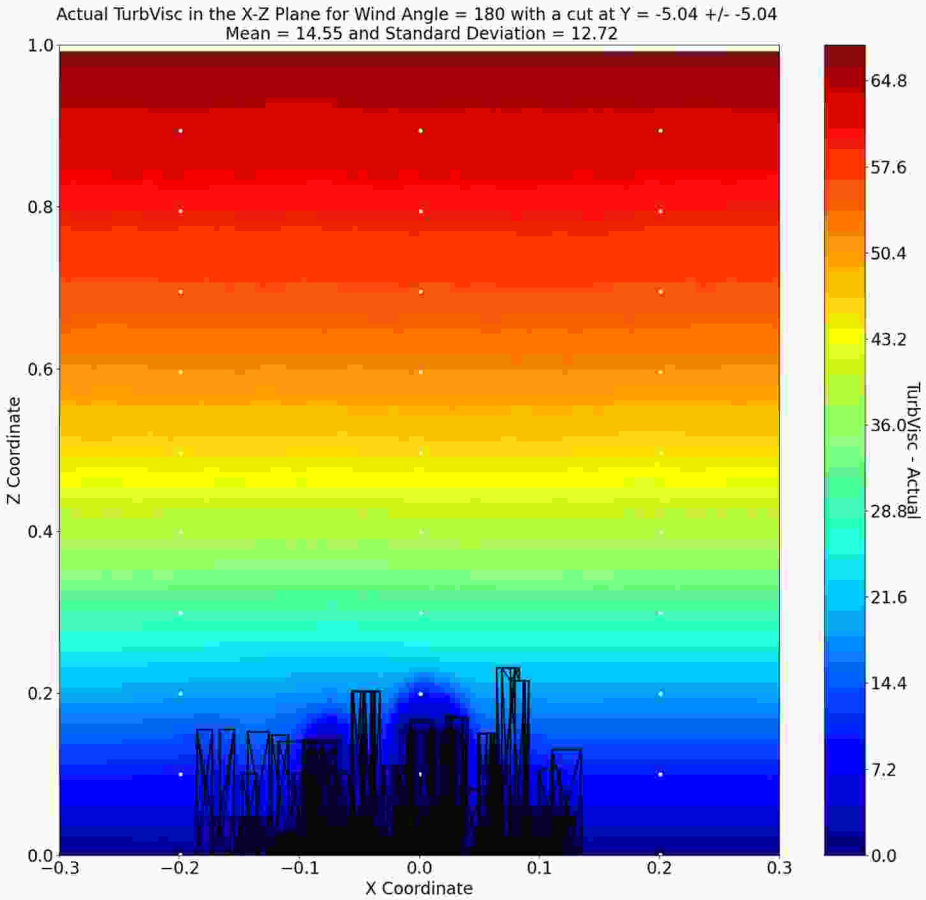


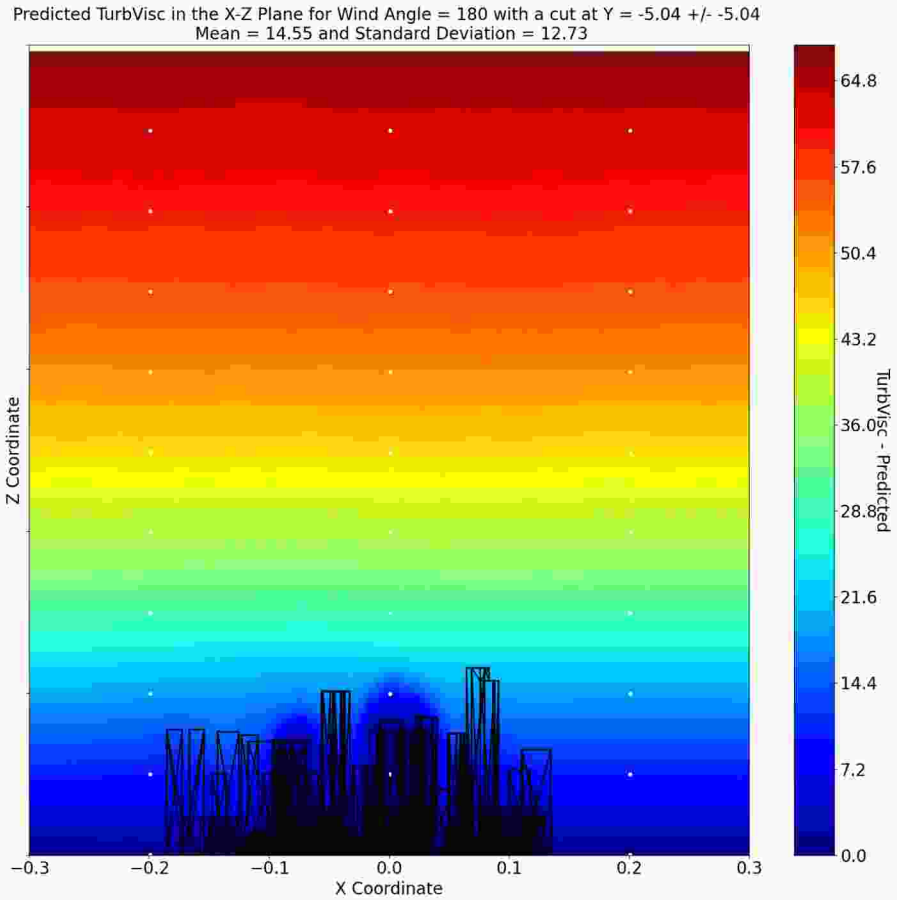
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



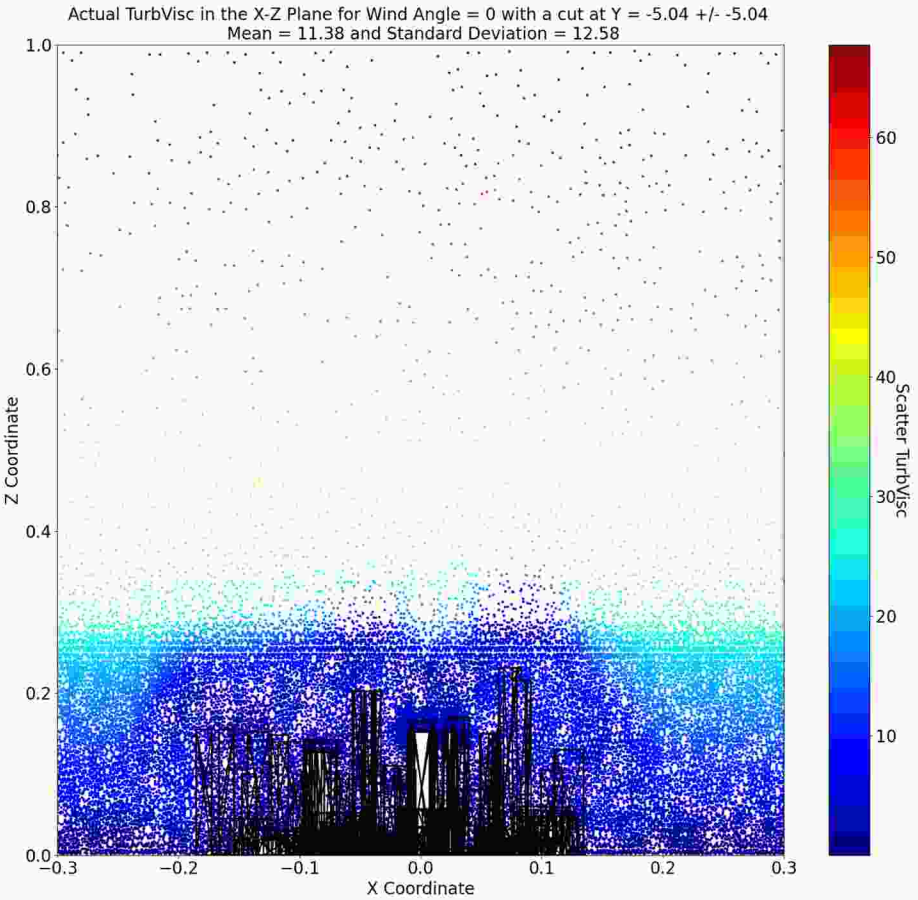


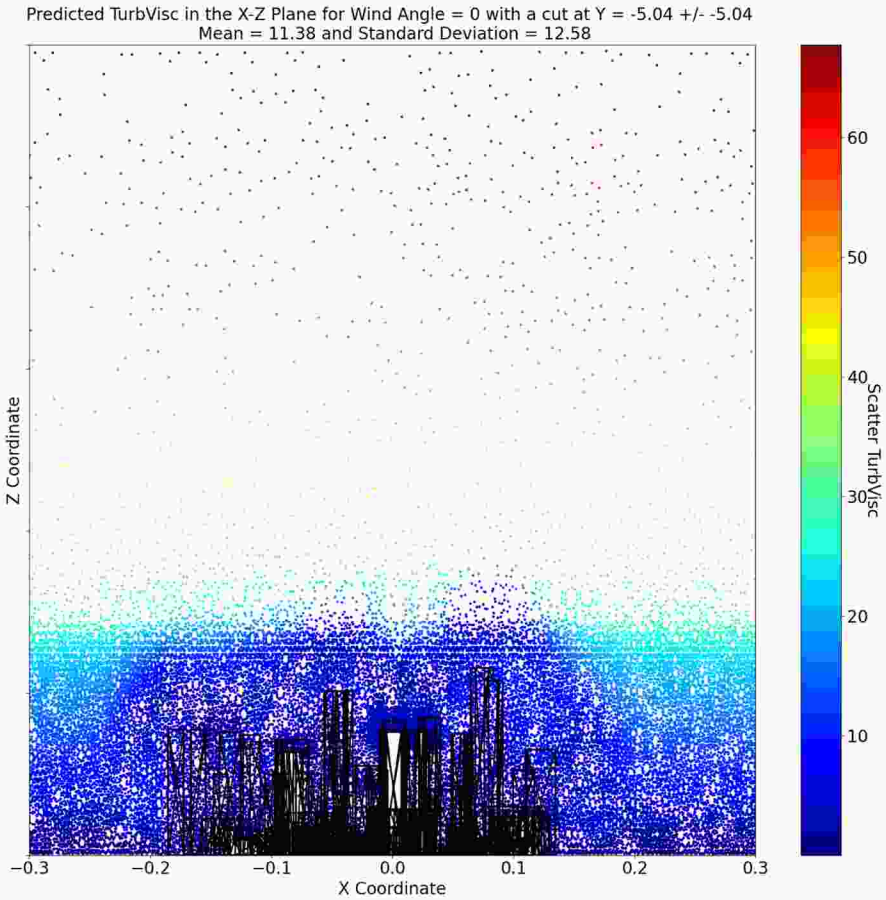
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



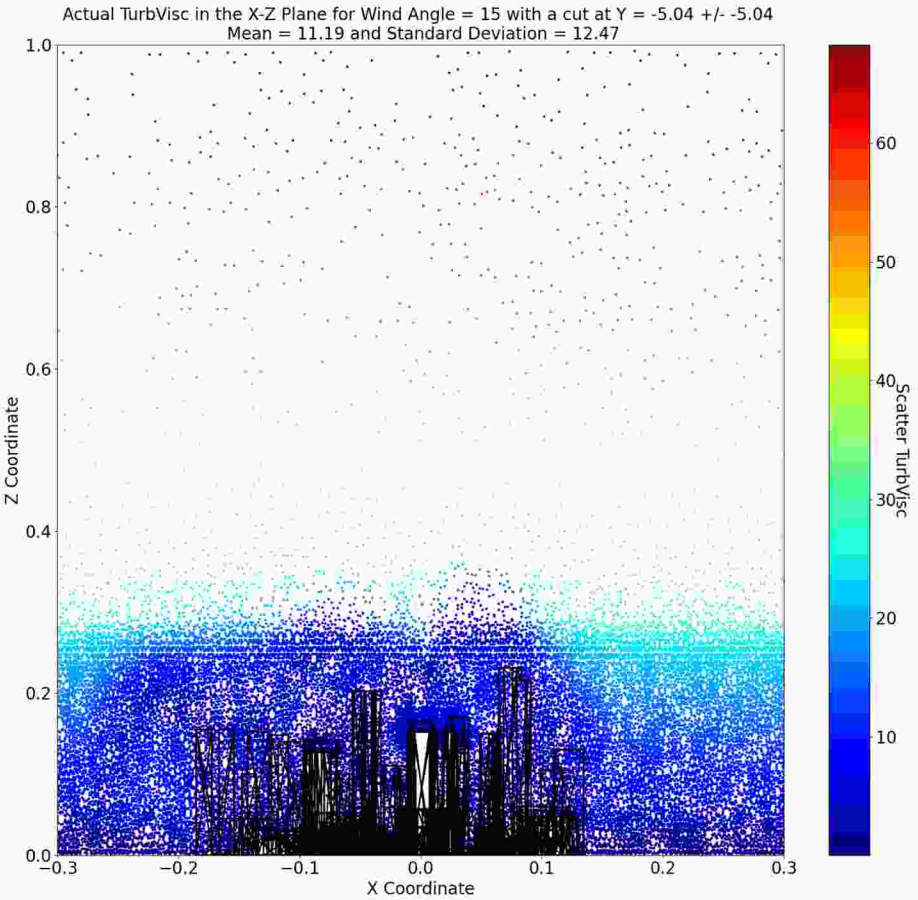


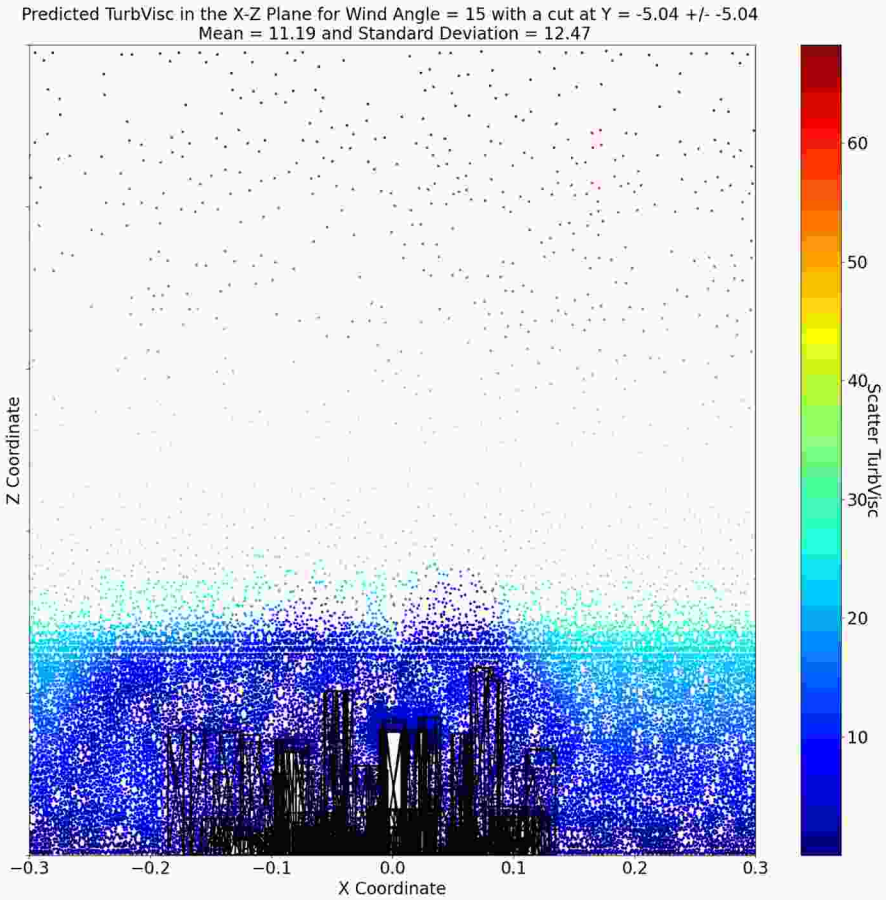
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



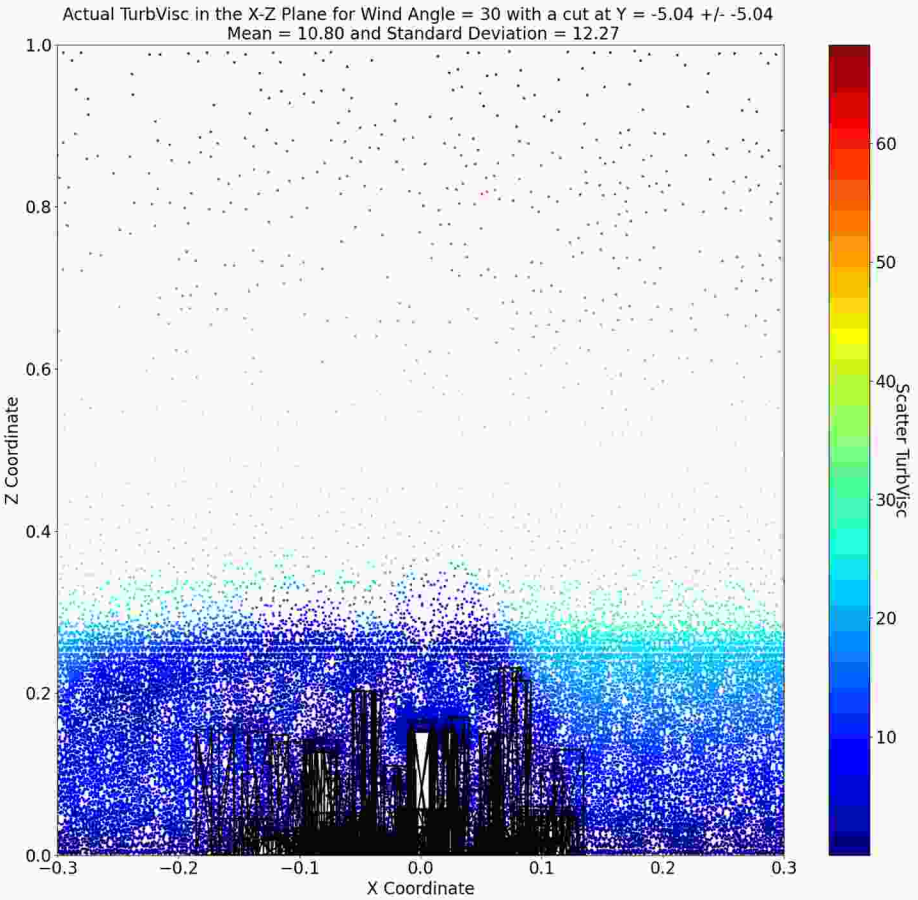


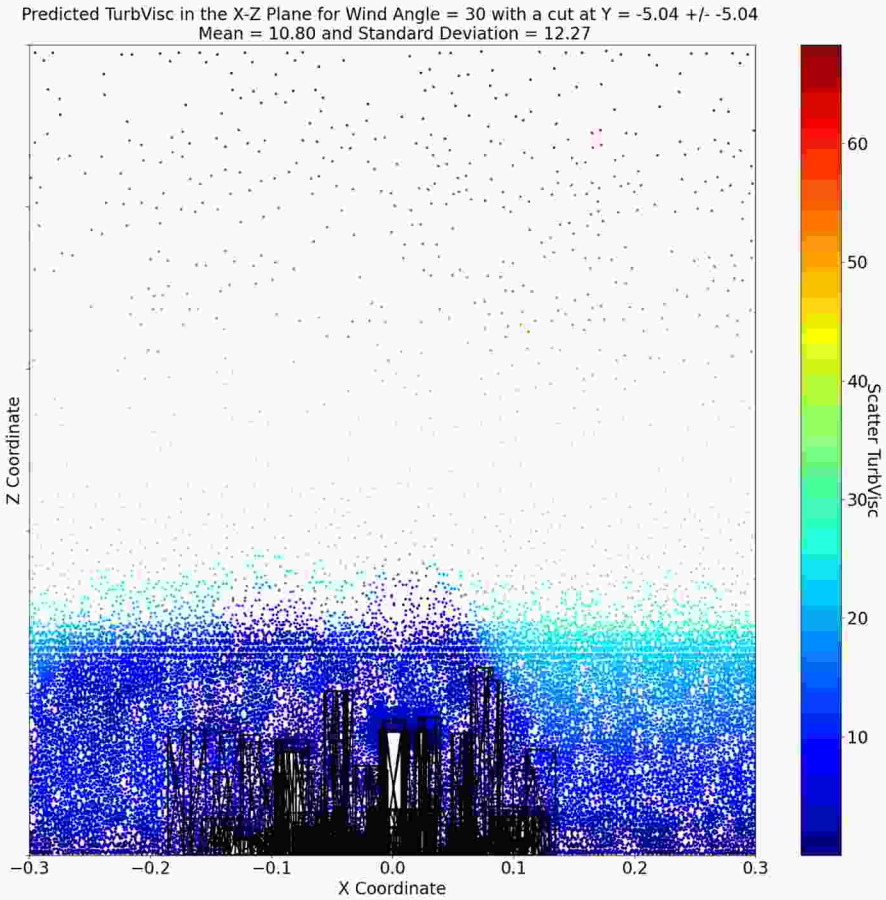
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



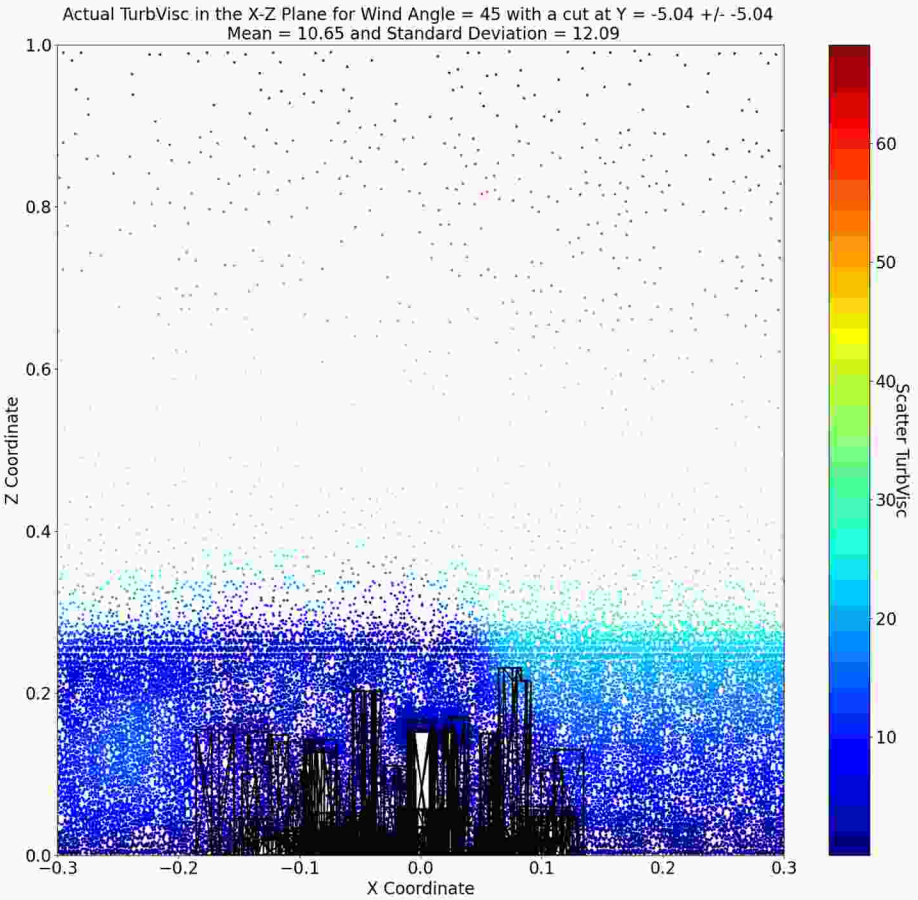


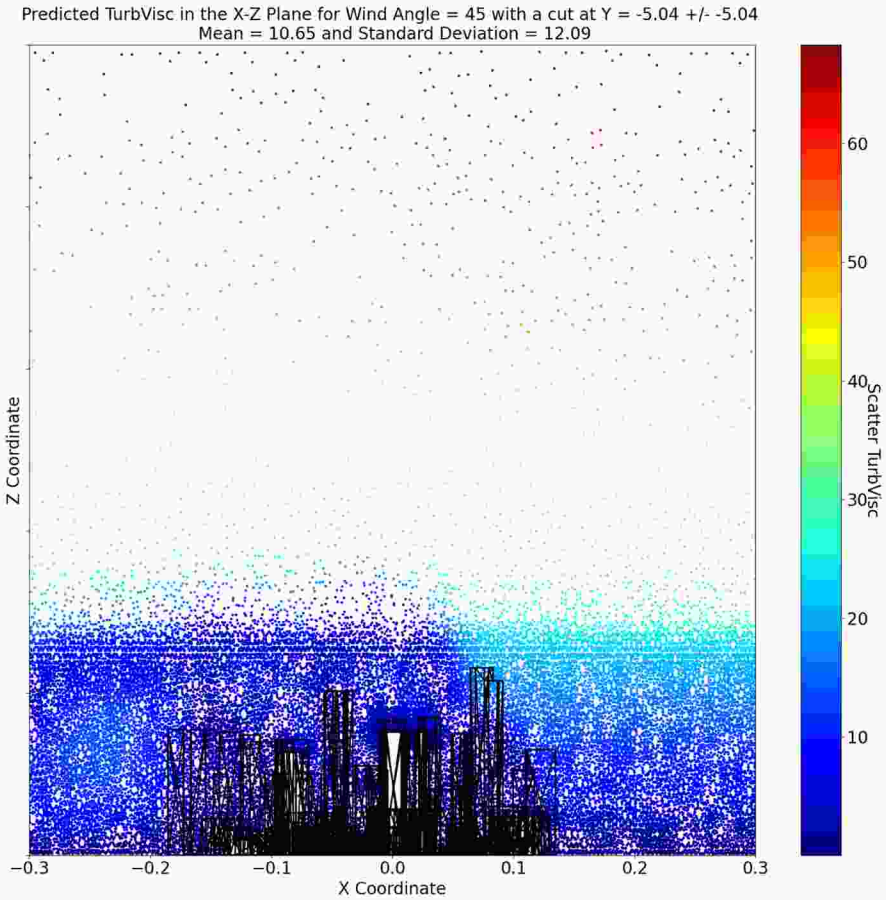
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



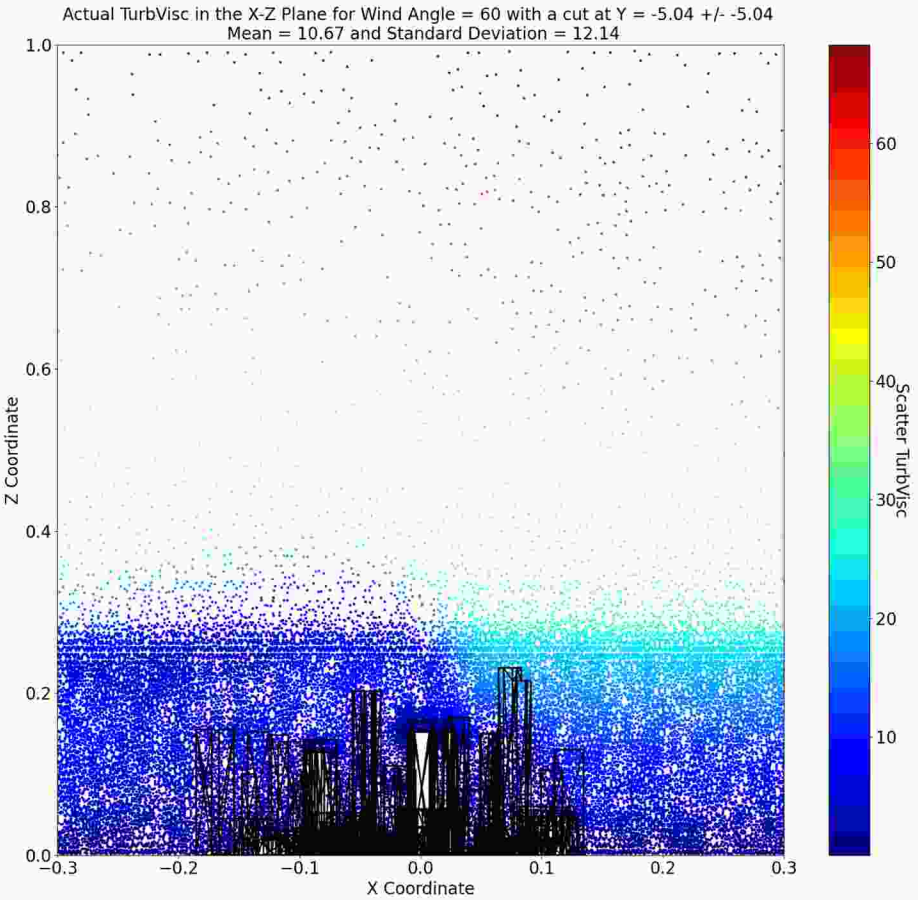


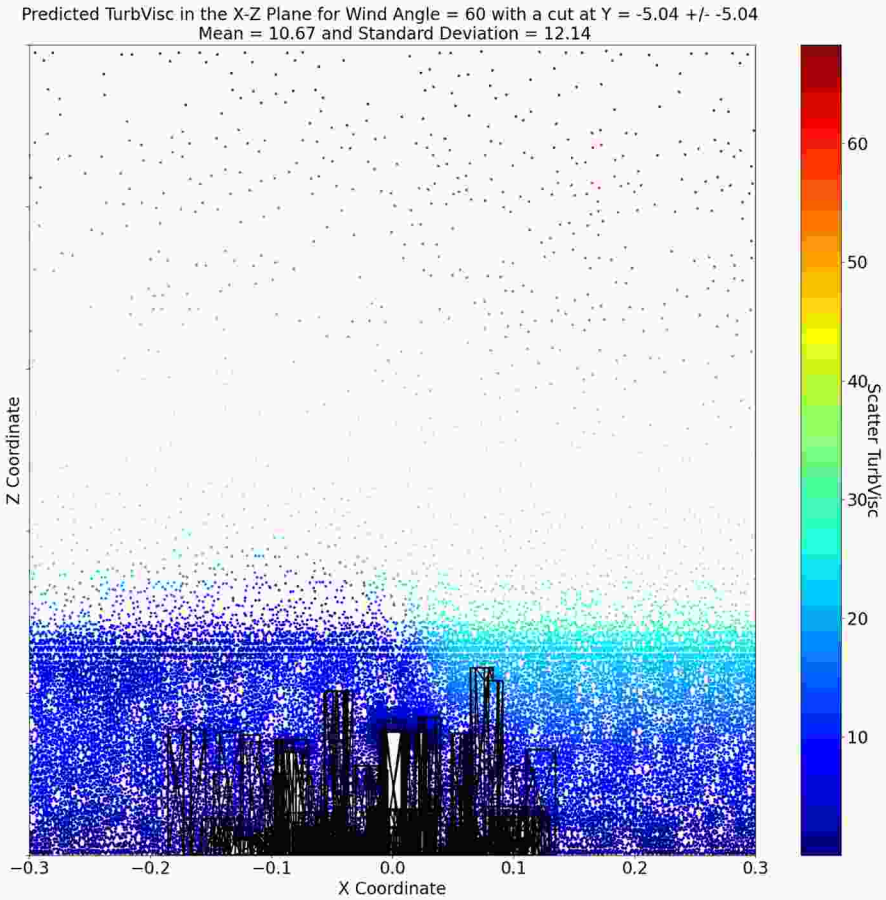
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



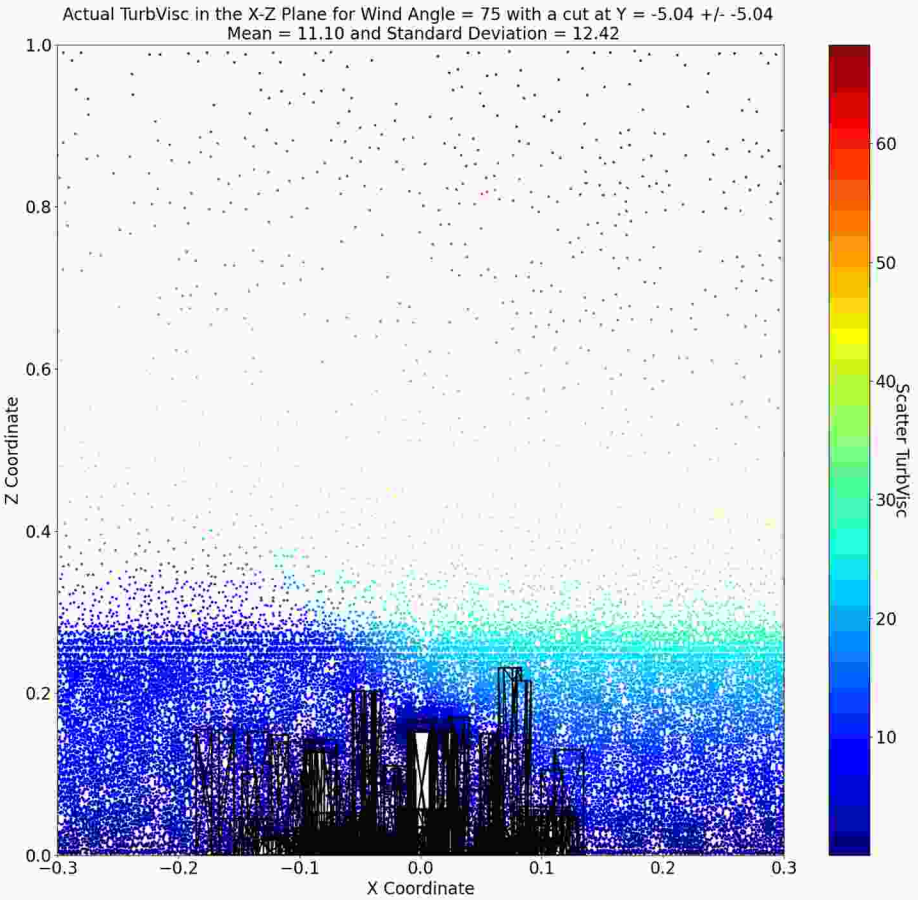


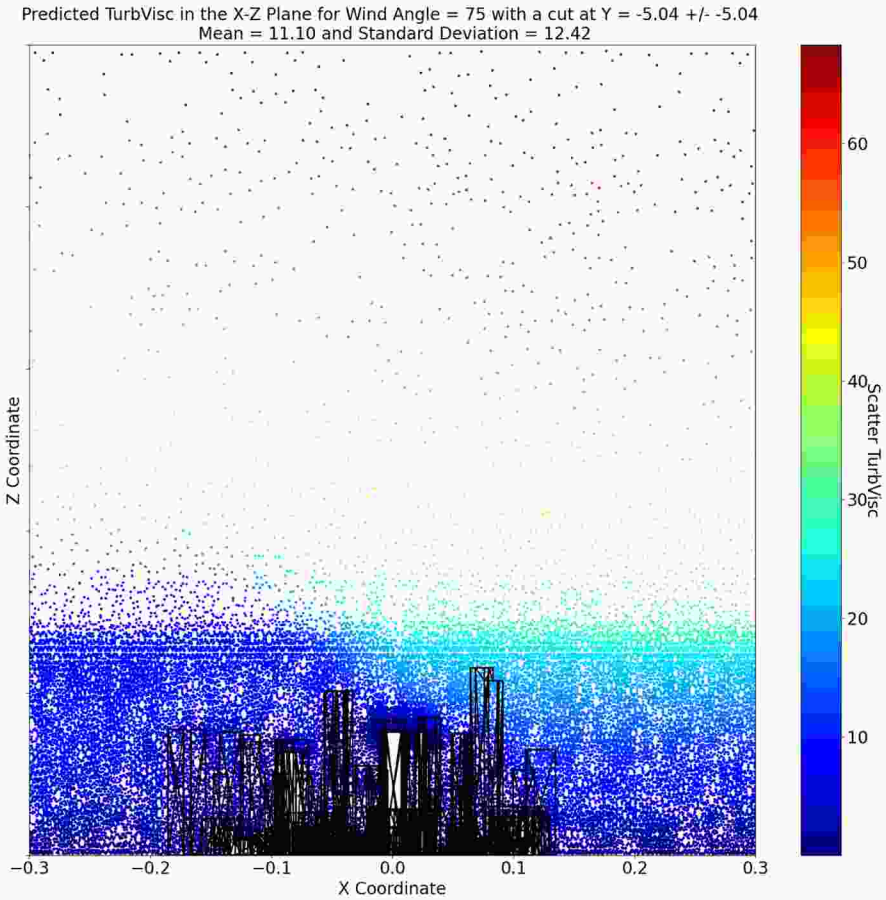
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



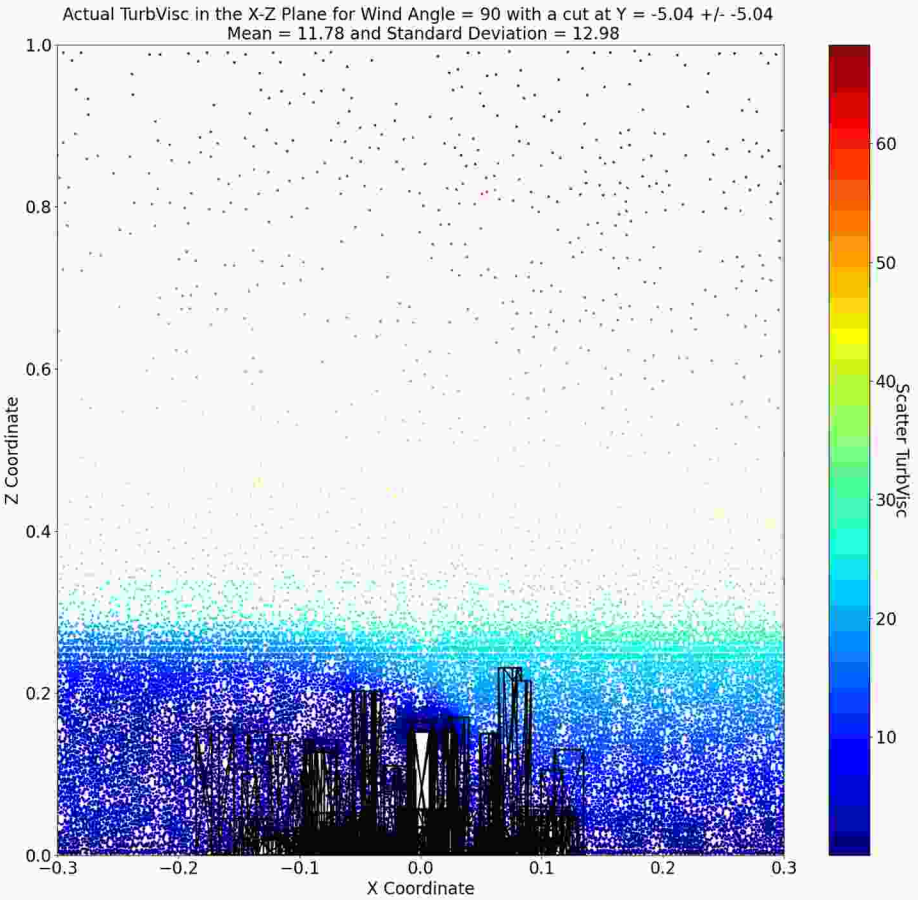


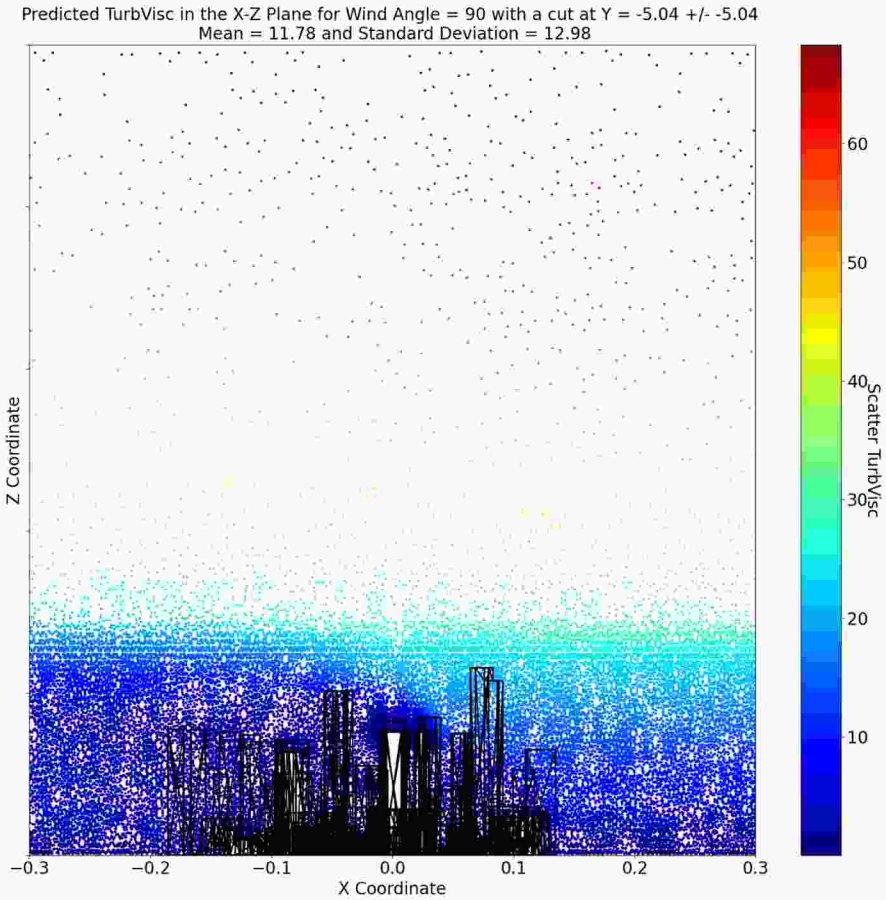
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



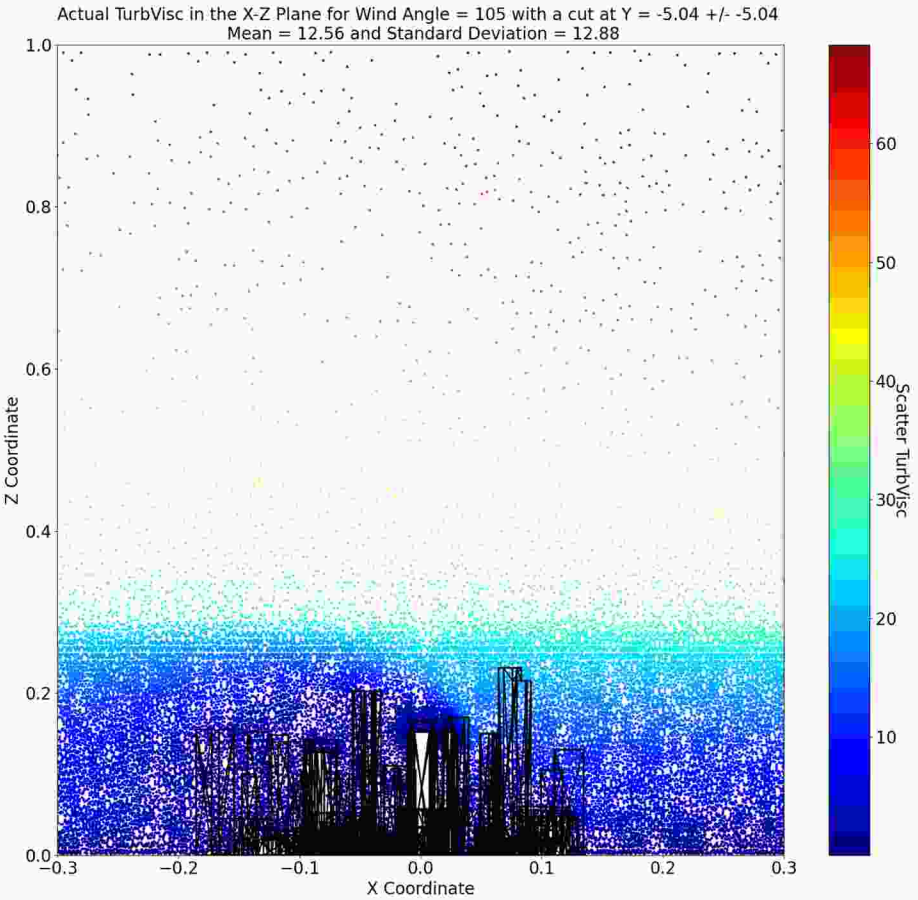


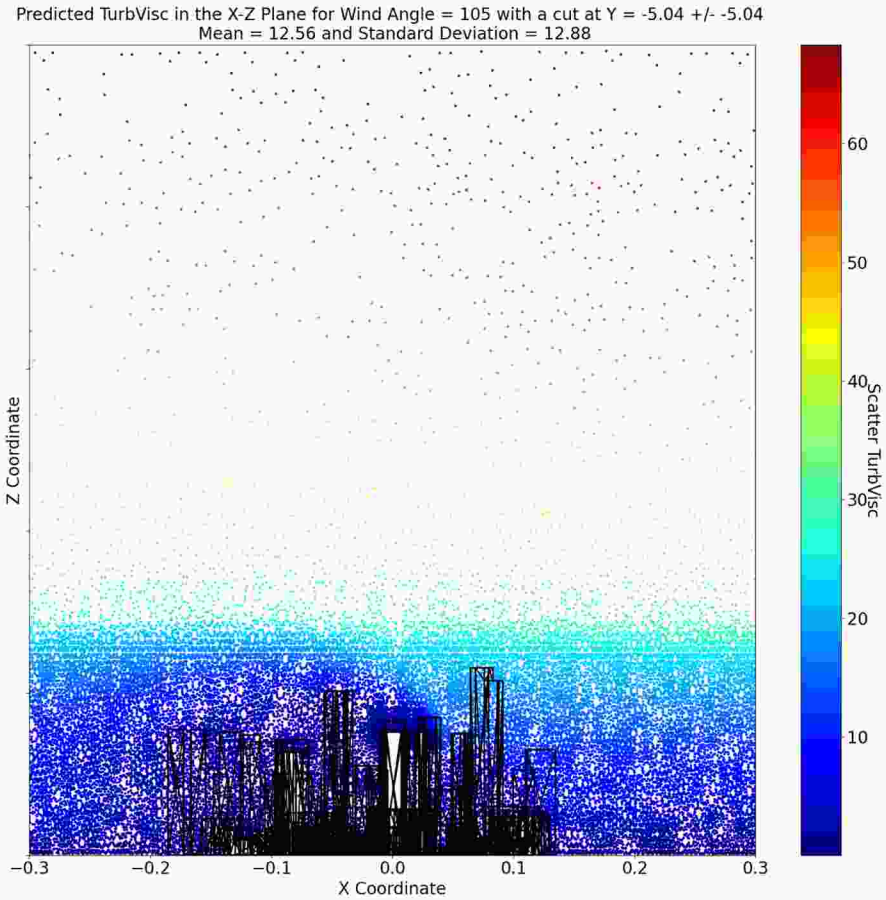
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



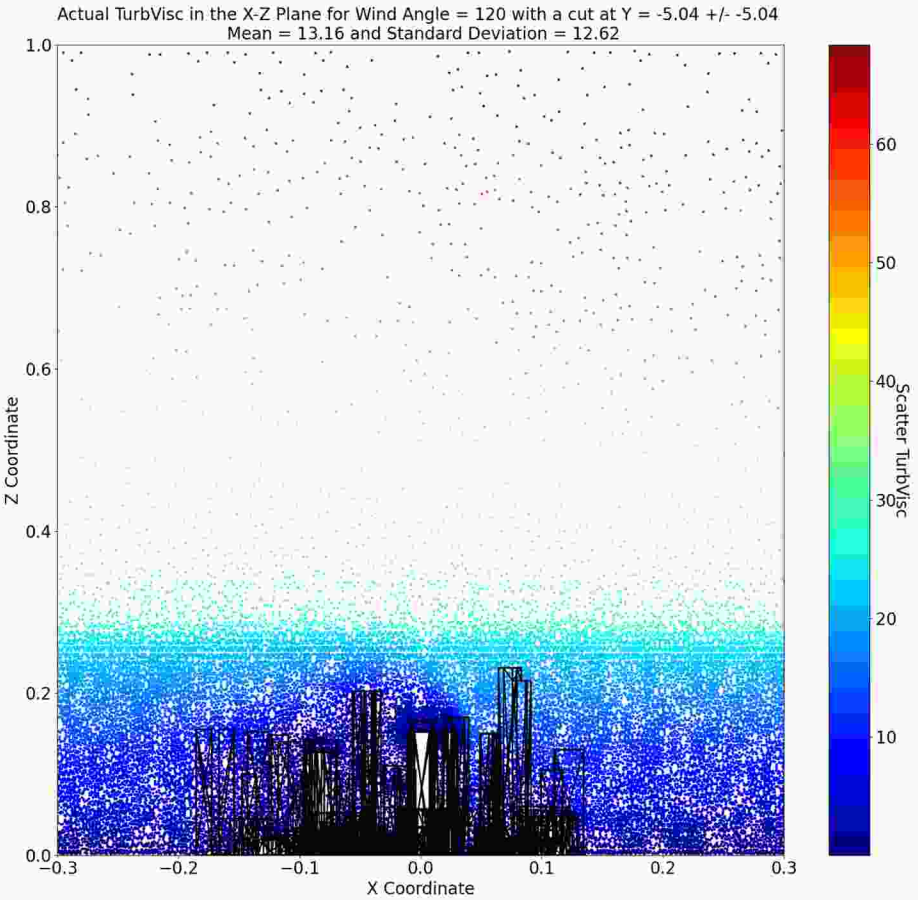


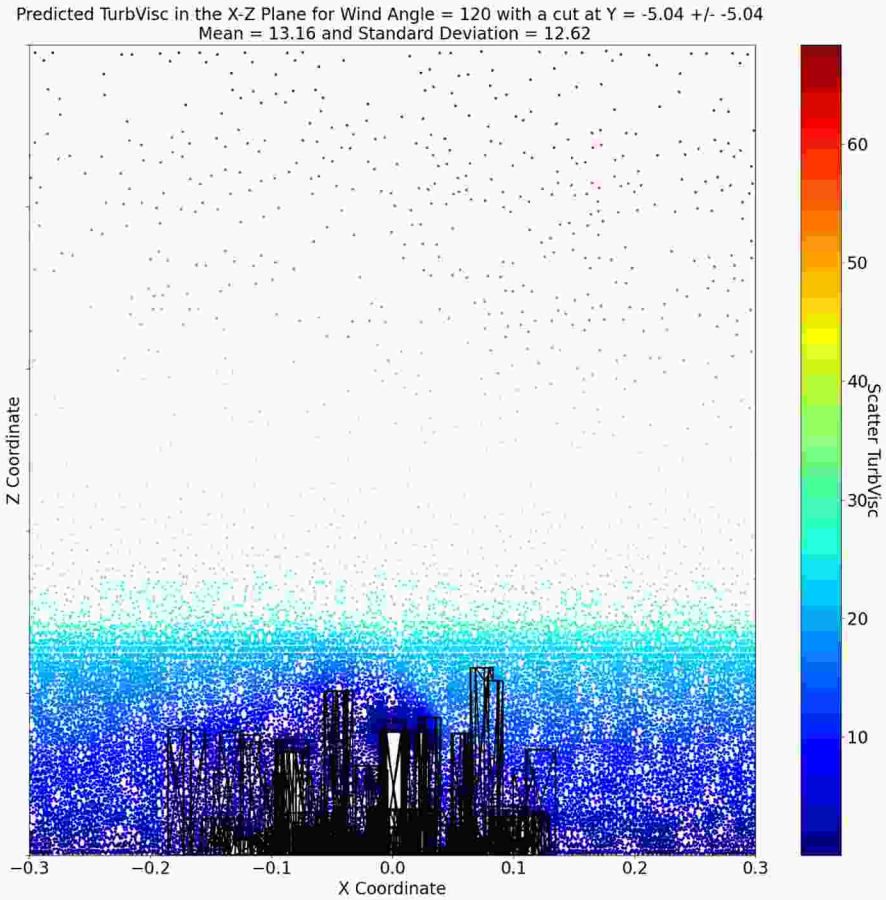
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



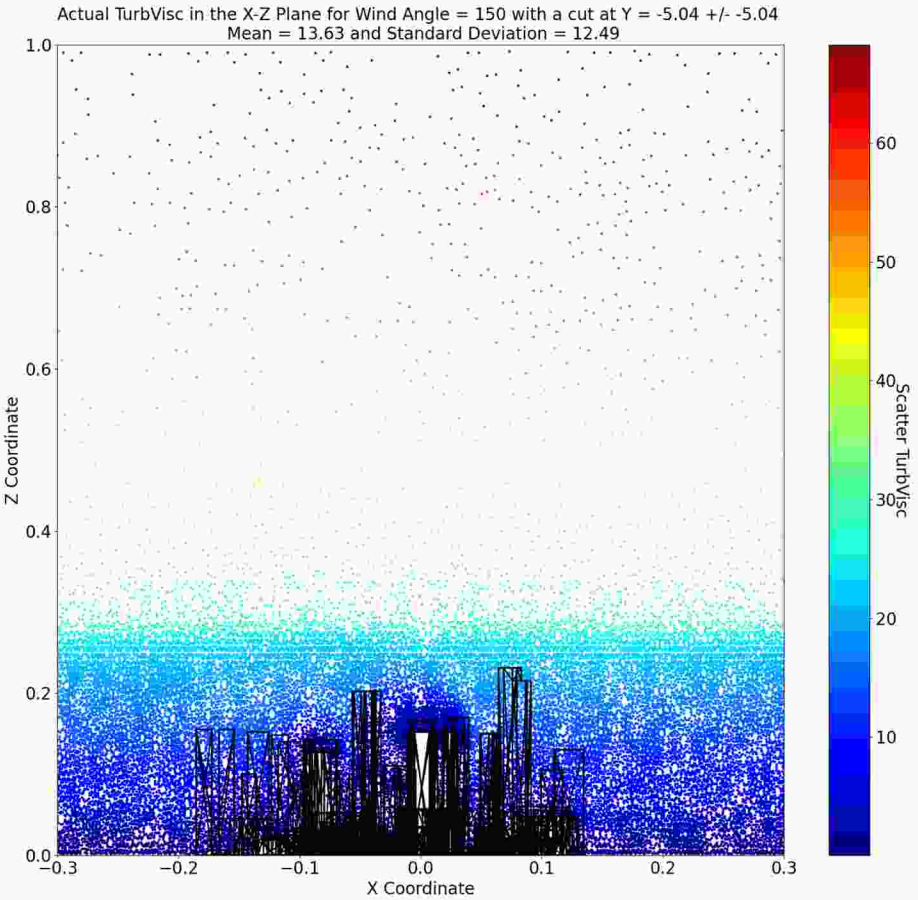


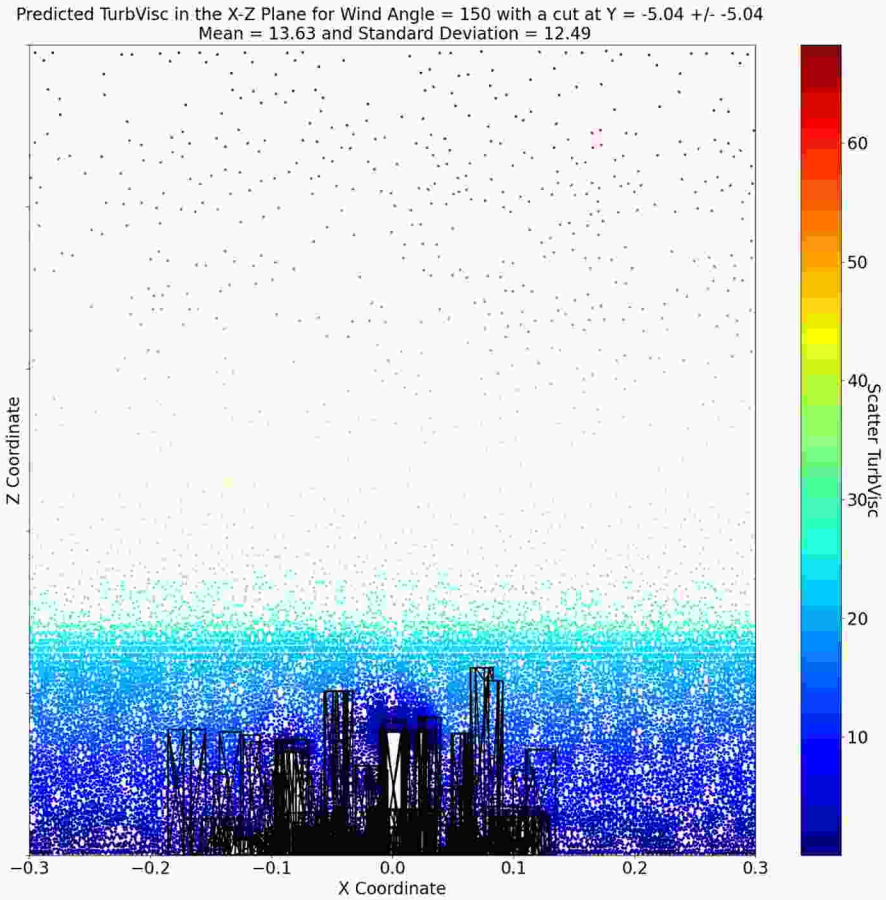
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



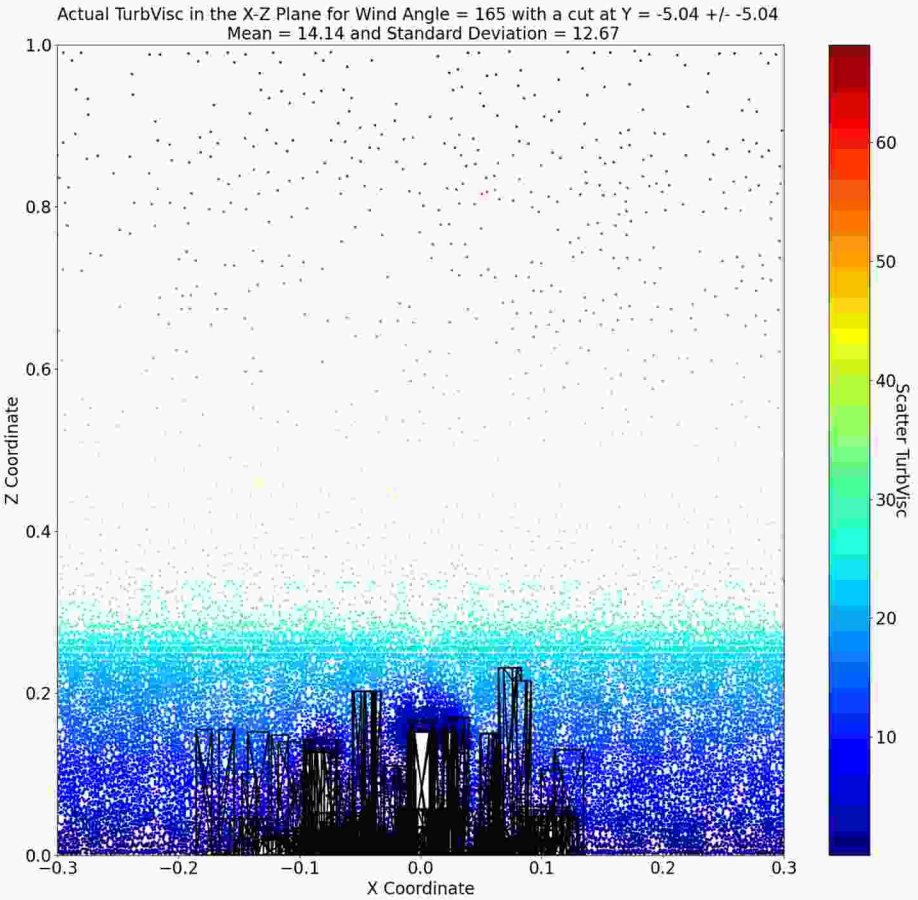


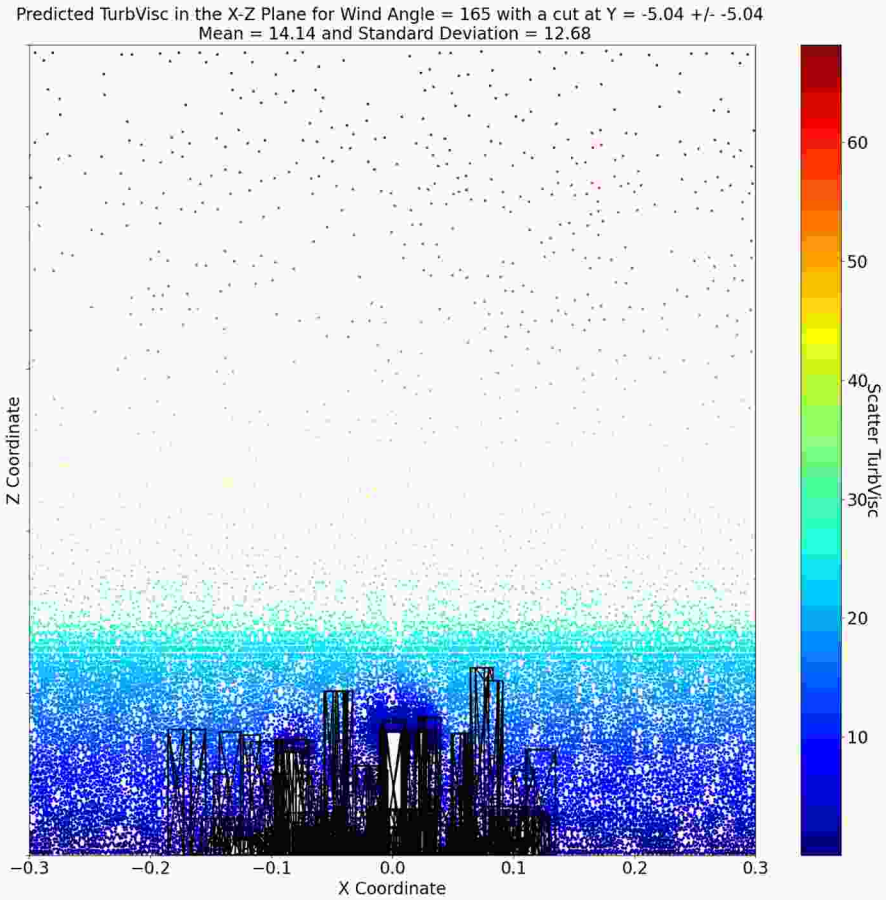
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



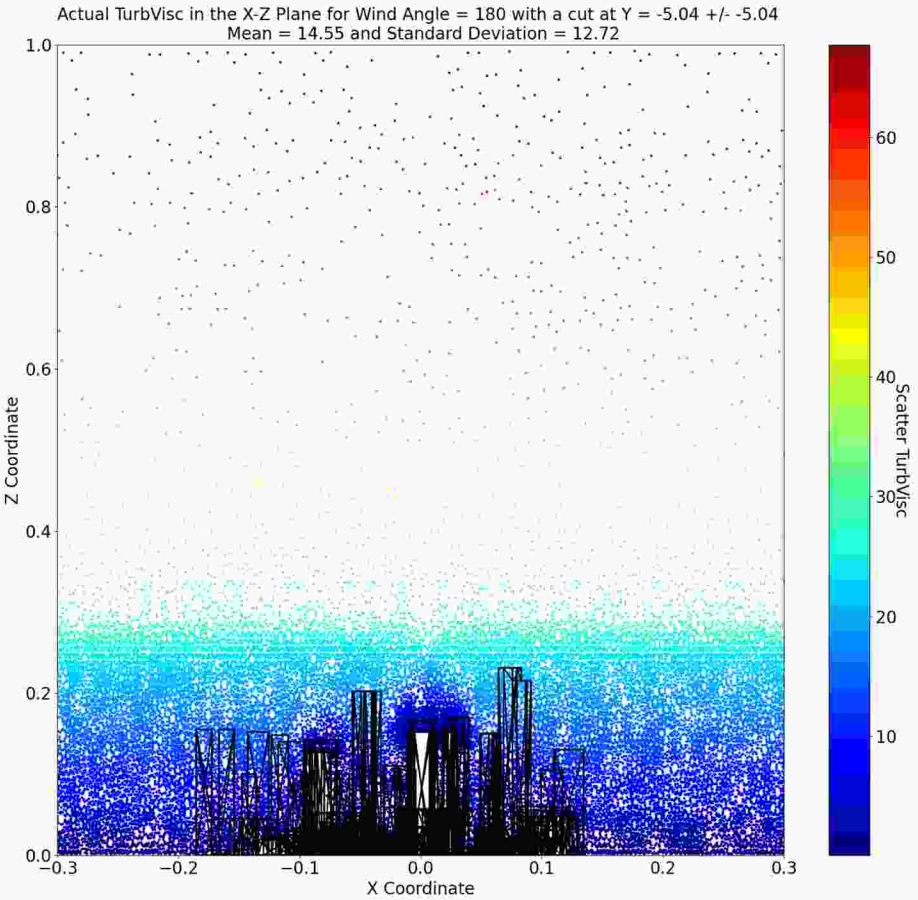


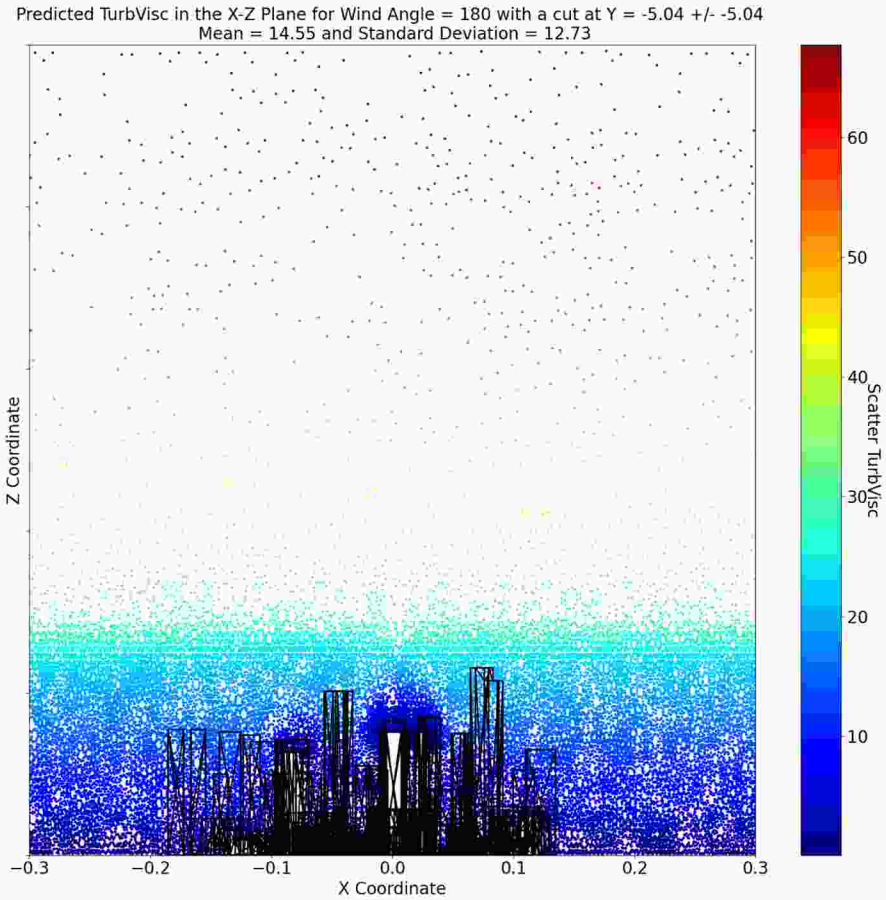
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

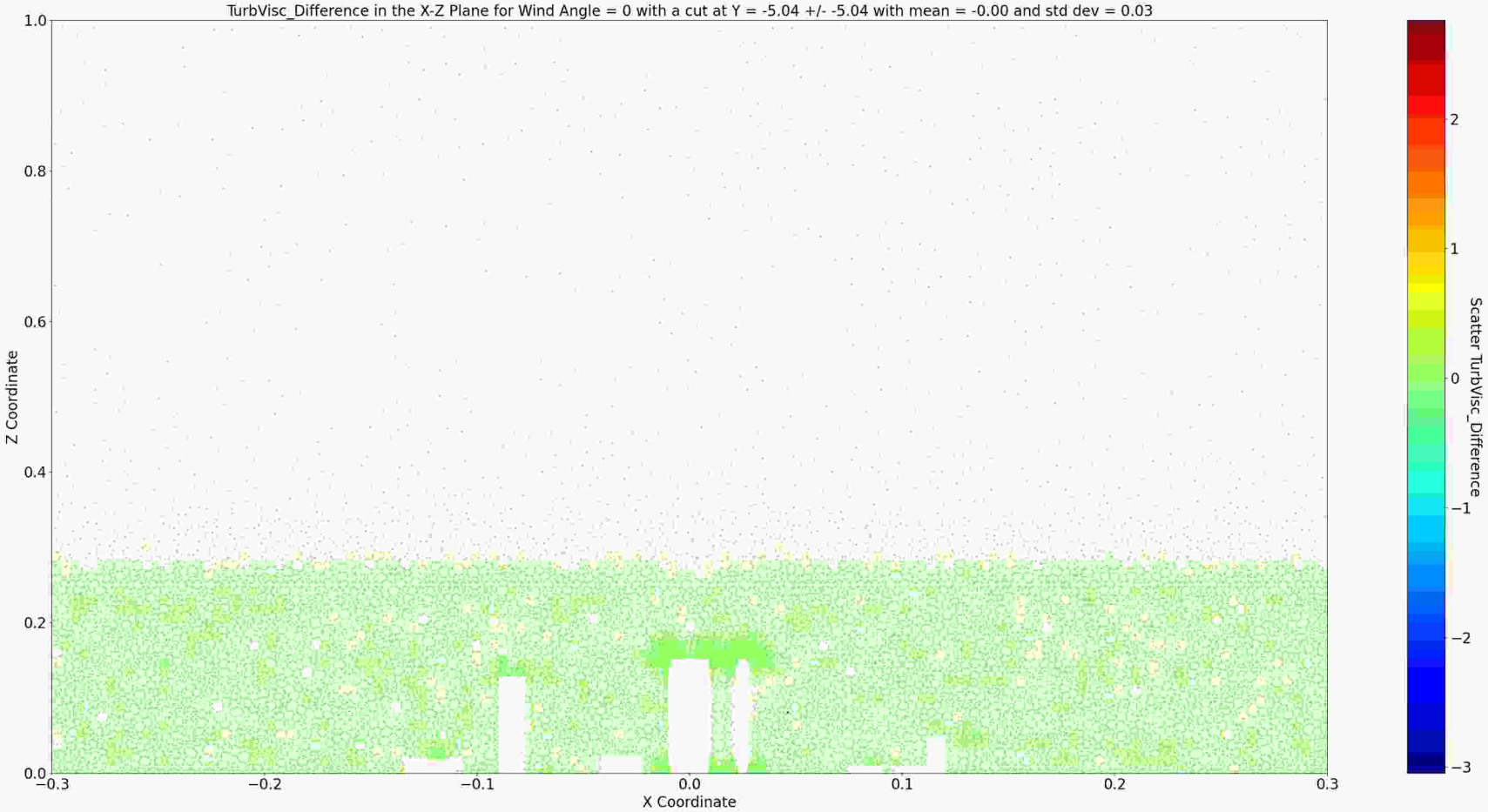


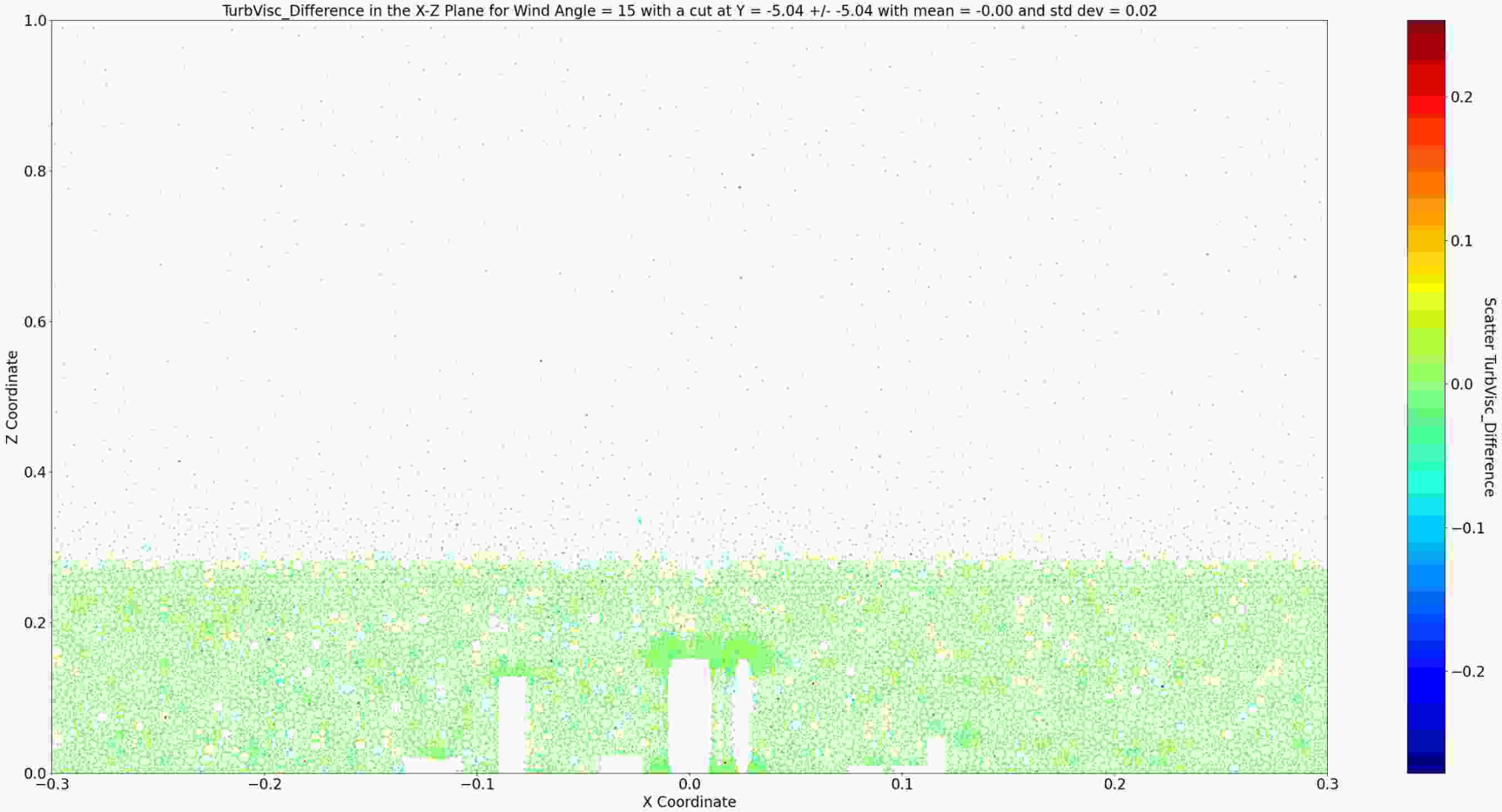


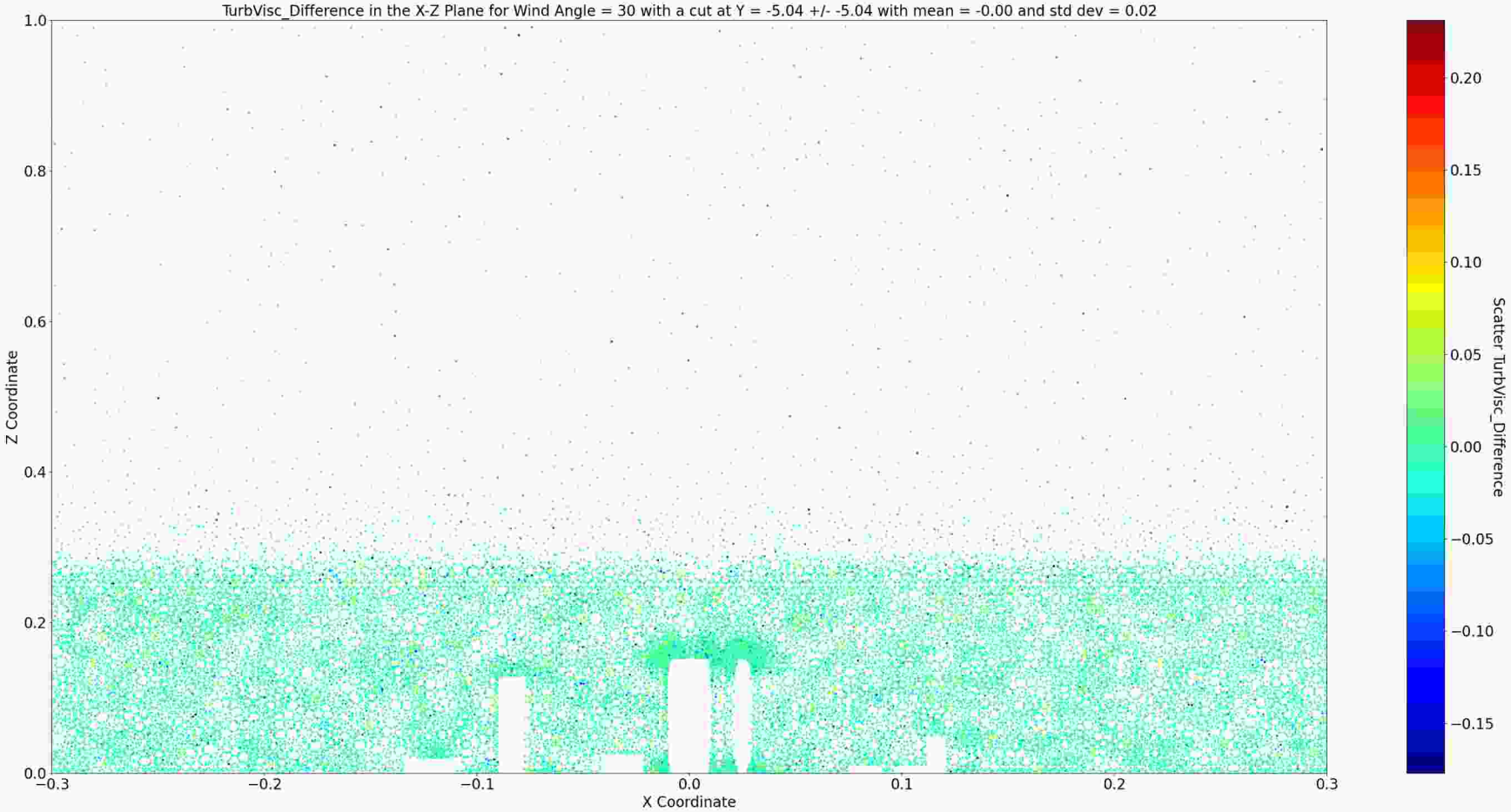
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

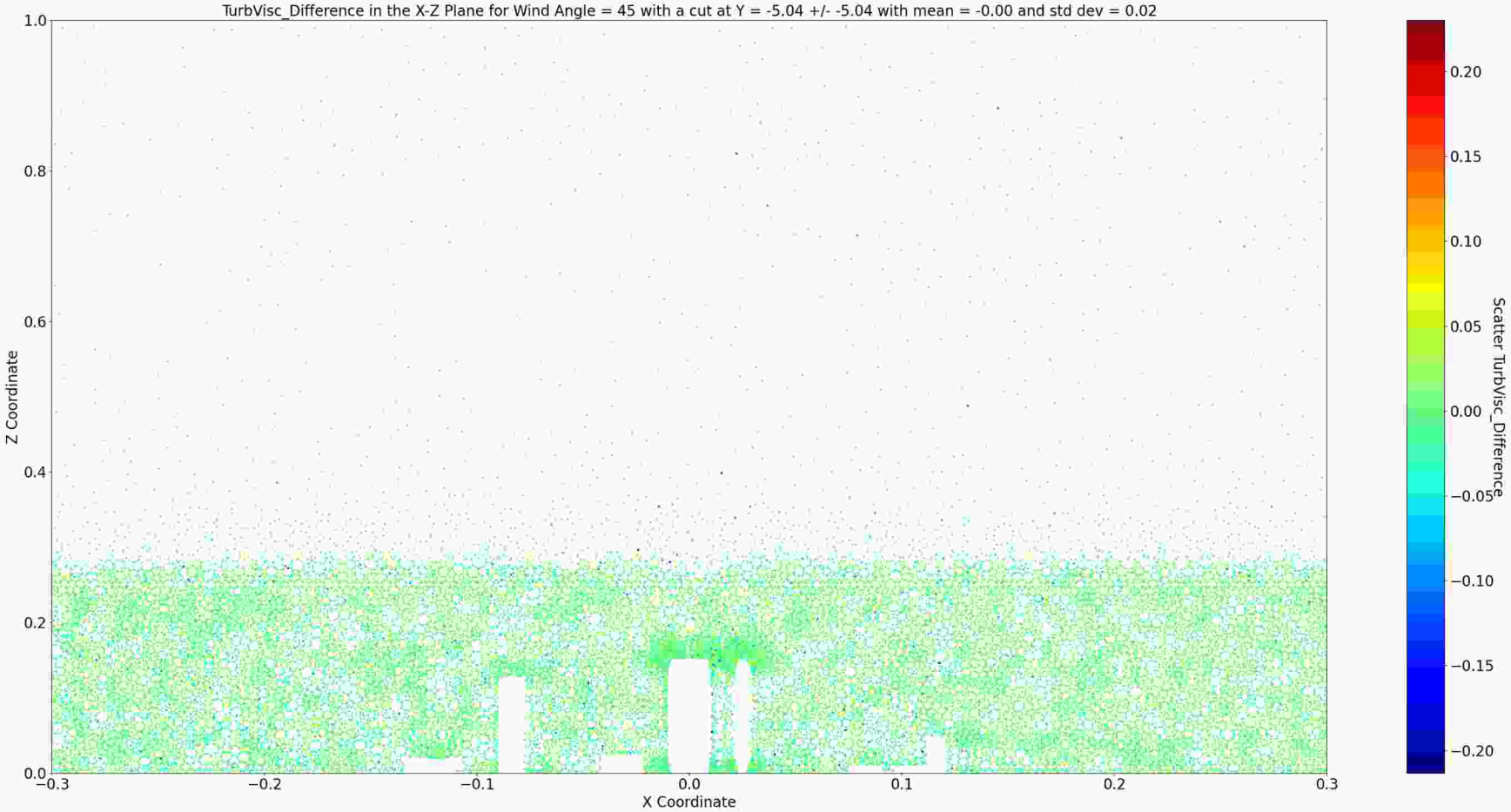


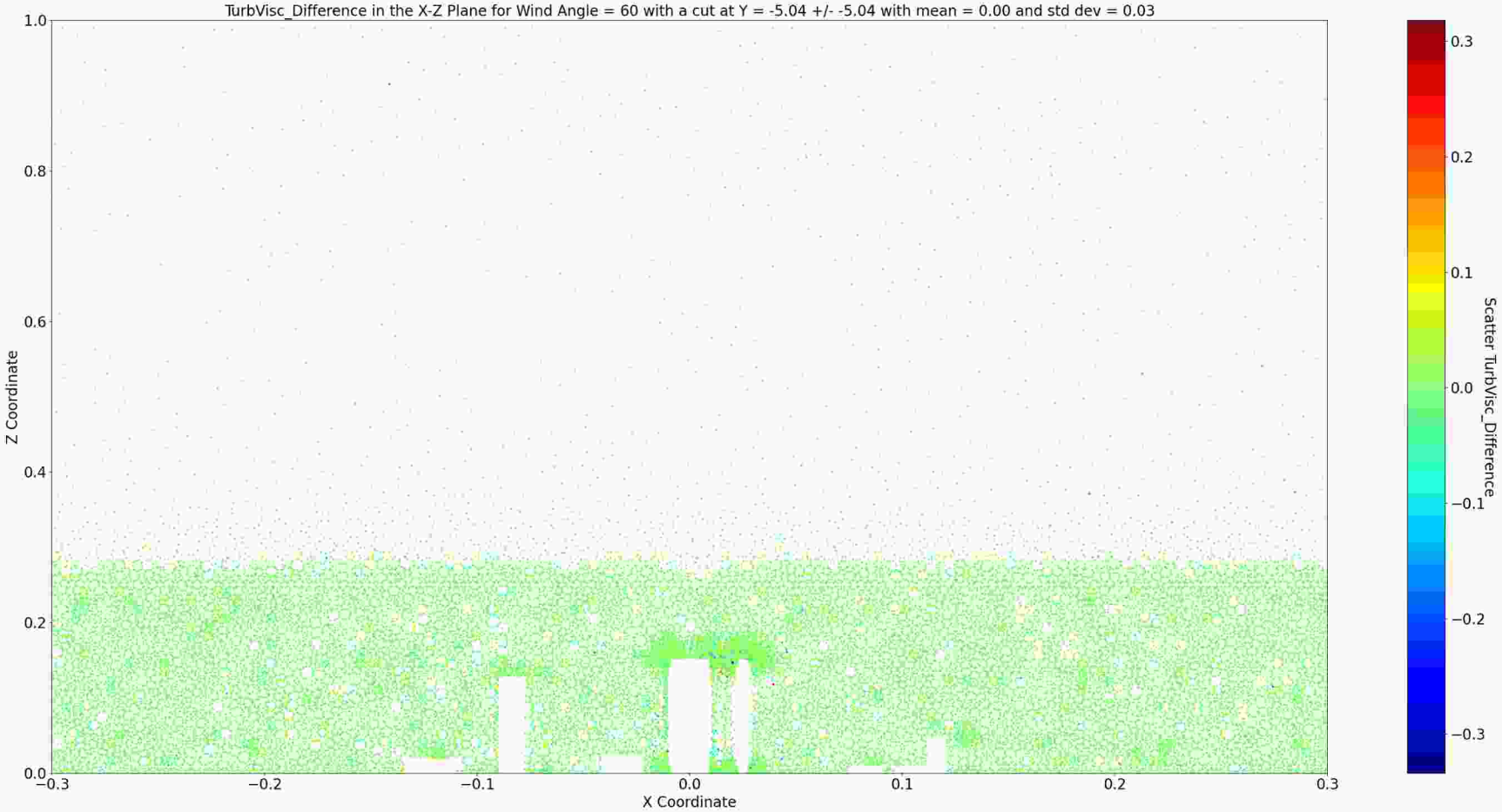


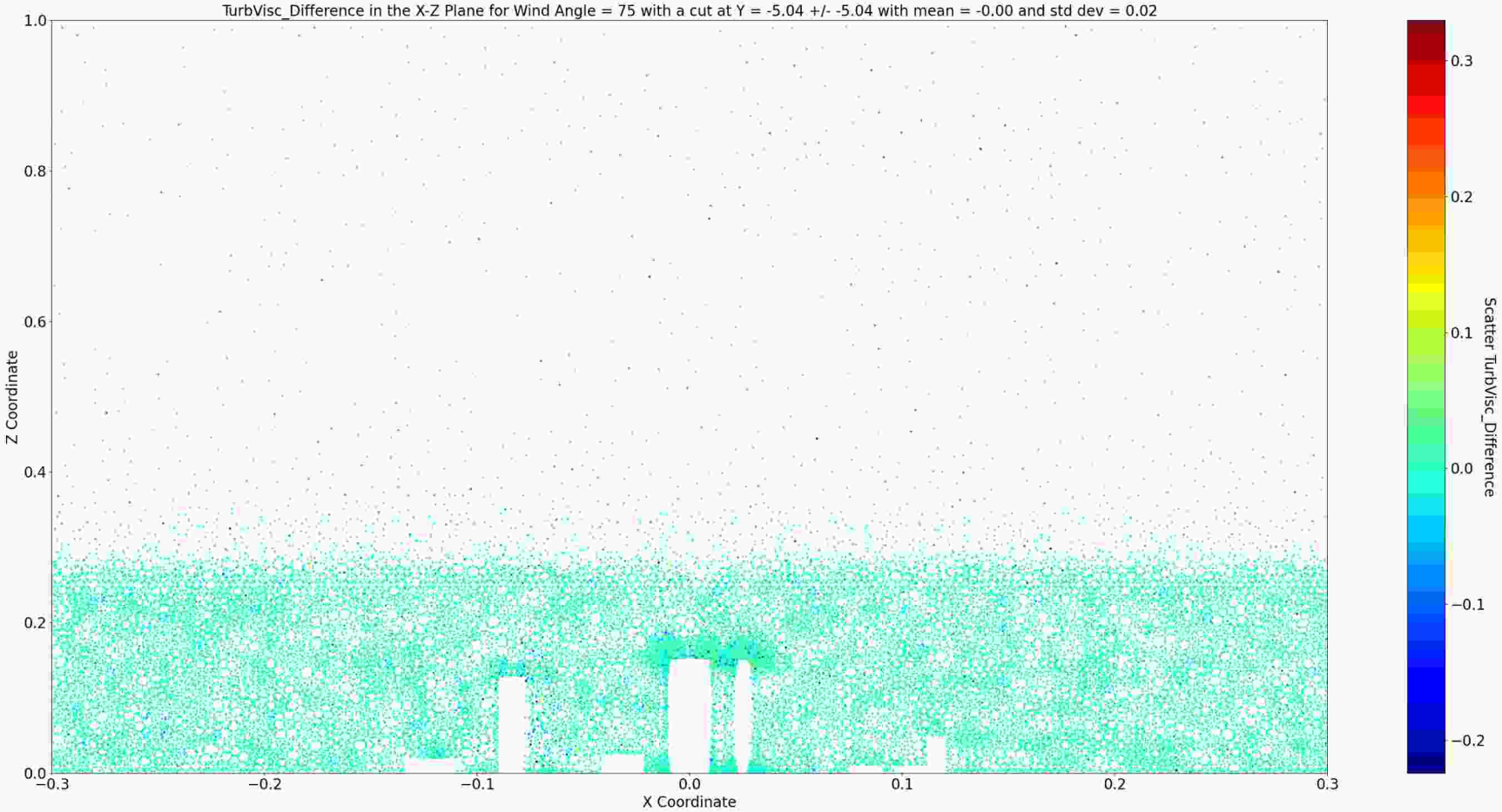

TurbVisc_Difference in the X-Z Plane for Wind Angle = 0 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.03
Z Coordinate
X Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
2
1
0
−1
−2
−3

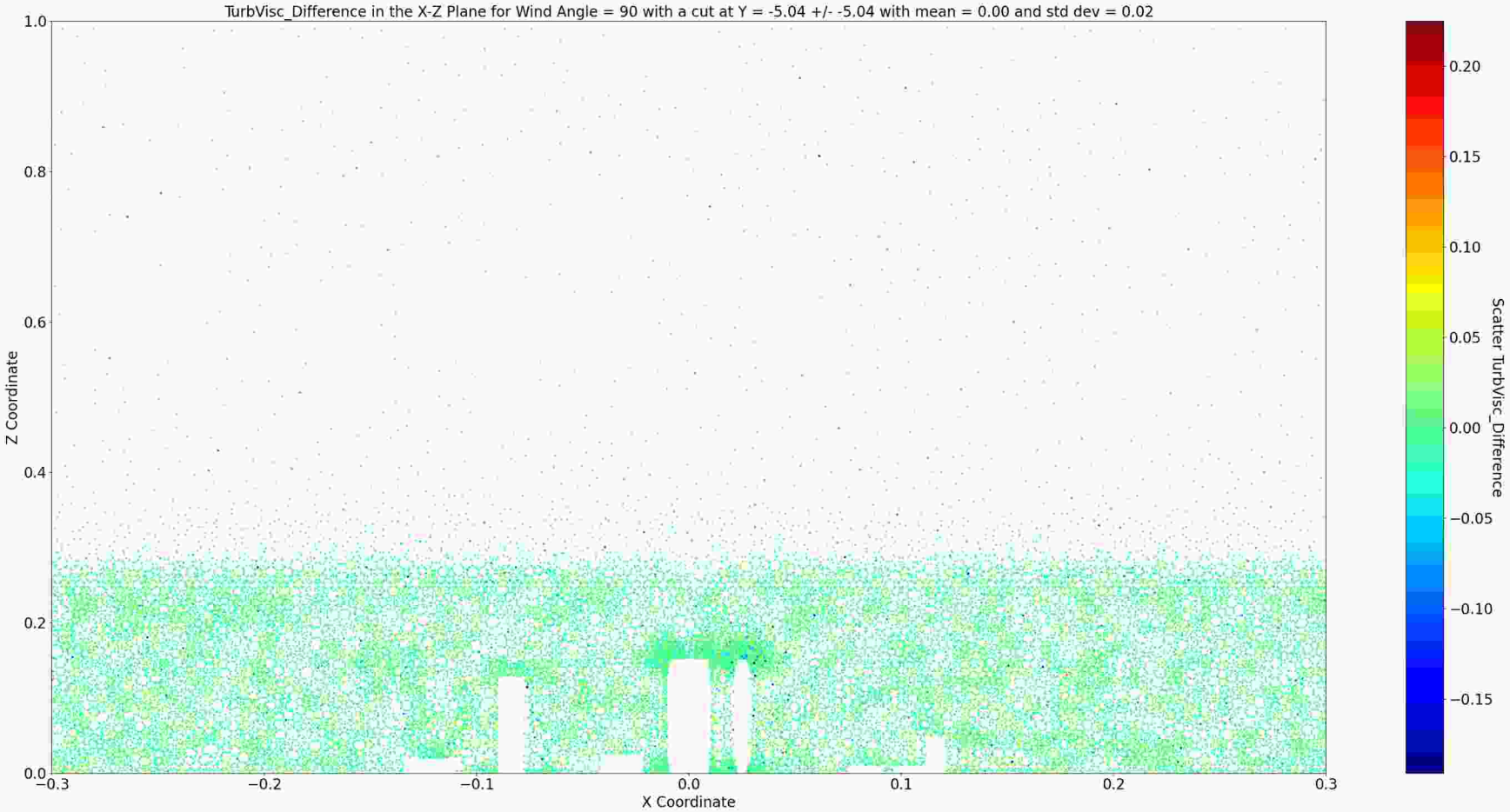

TurbVisc_Difference in the X-Z Plane for Wind Angle = 15 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.02
Z Coordinate
X Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.2
0.1
0.0
−0.1
−0.2

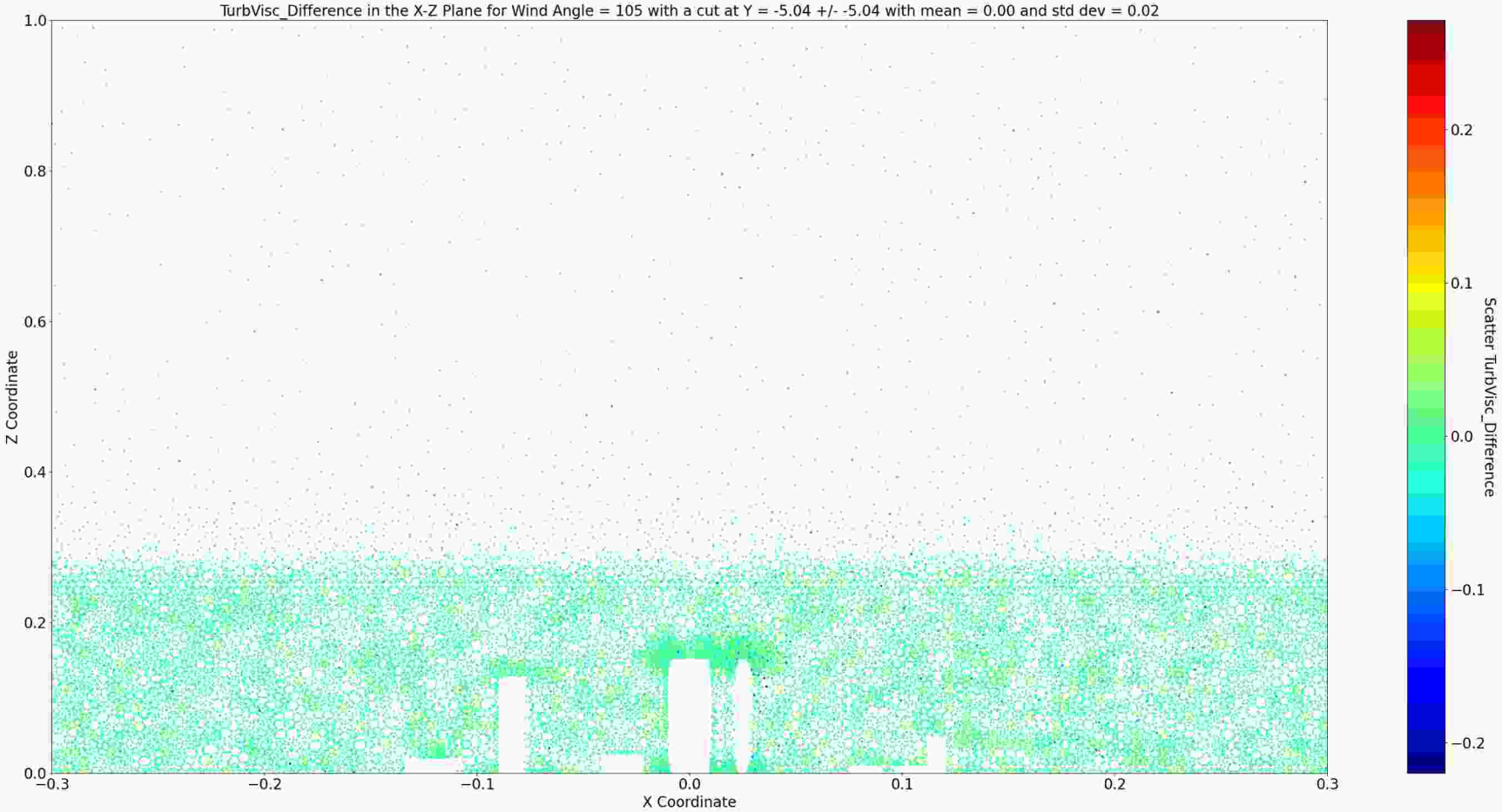

TurbVisc_Difference in the X-Z Plane for Wind Angle = 30 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.02
Z Coordinate
X Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.20
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15

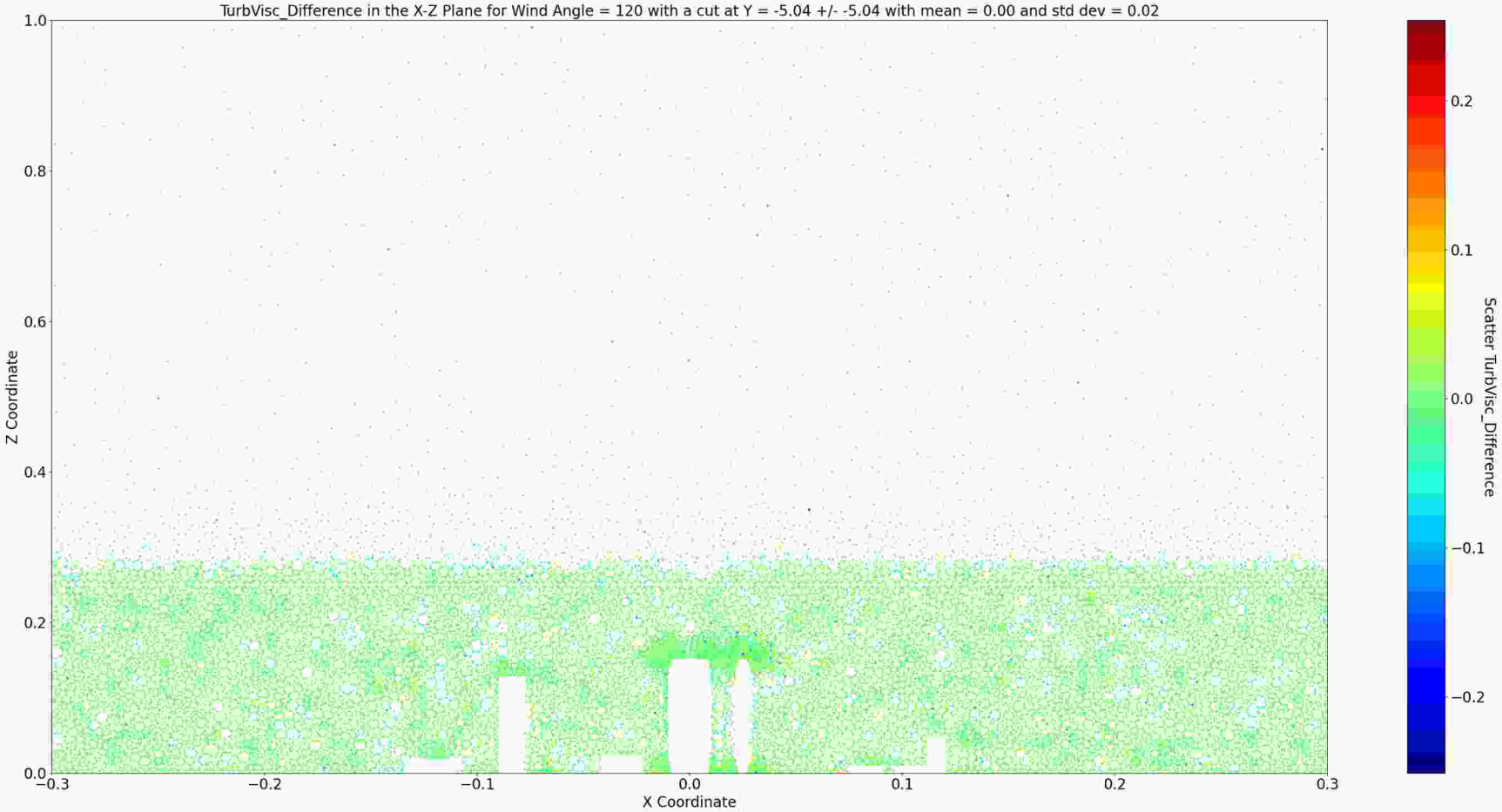

TurbVisc_Difference in the X-Z Plane for Wind Angle = 45 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.02
Z Coordinate
X Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.20
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
−0.20

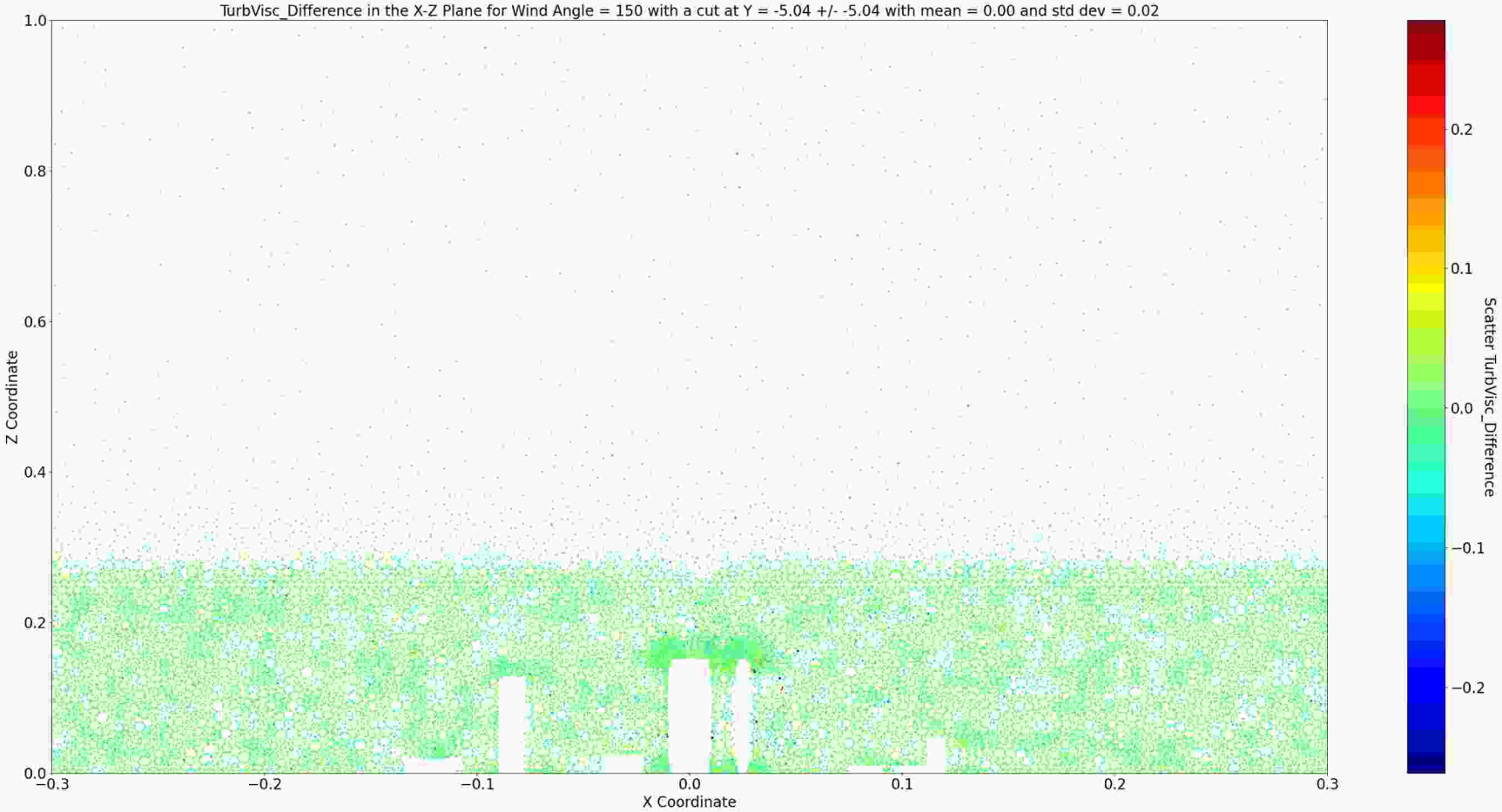

TurbVisc_Difference in the X-Z Plane for Wind Angle = 60 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.03
Z Coordinate
X Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3

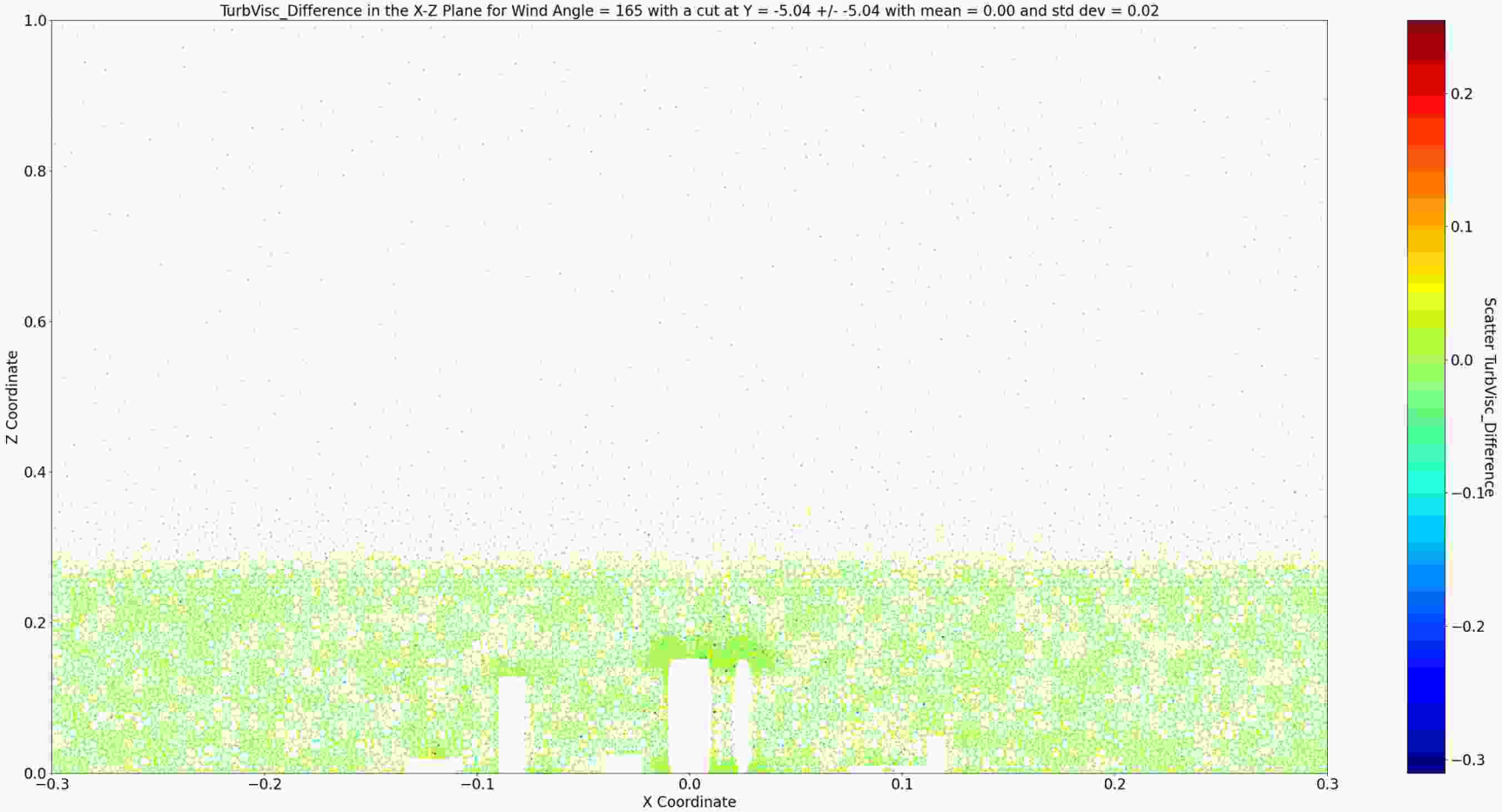

TurbVisc_Difference in the X-Z Plane for Wind Angle = 75 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.02
Z Coordinate
X Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.3
0.2
0.1
0.0
−0.1
−0.2

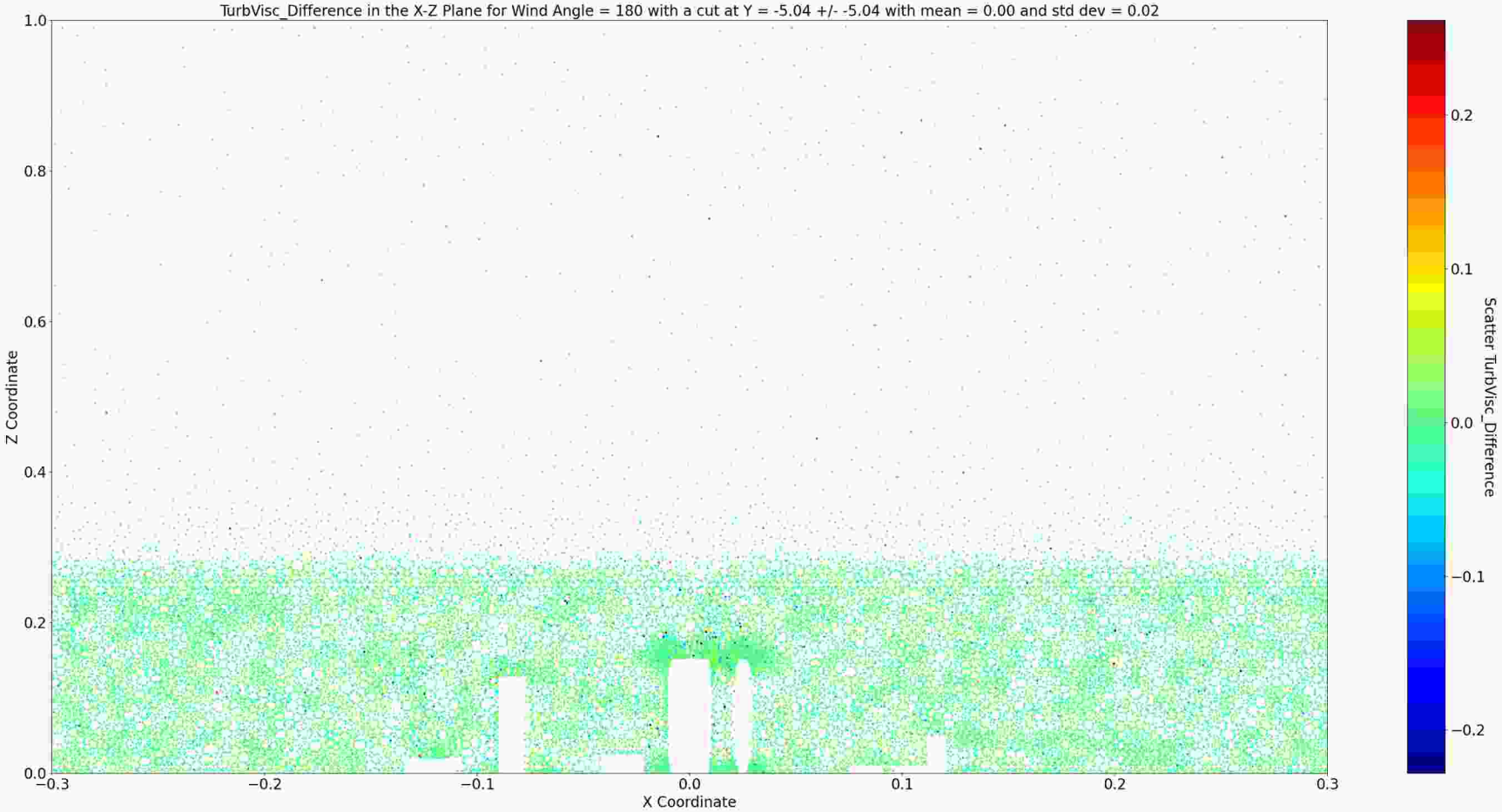

TurbVisc_Difference in the X-Z Plane for Wind Angle = 90 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.02
Z Coordinate
X Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.20
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15

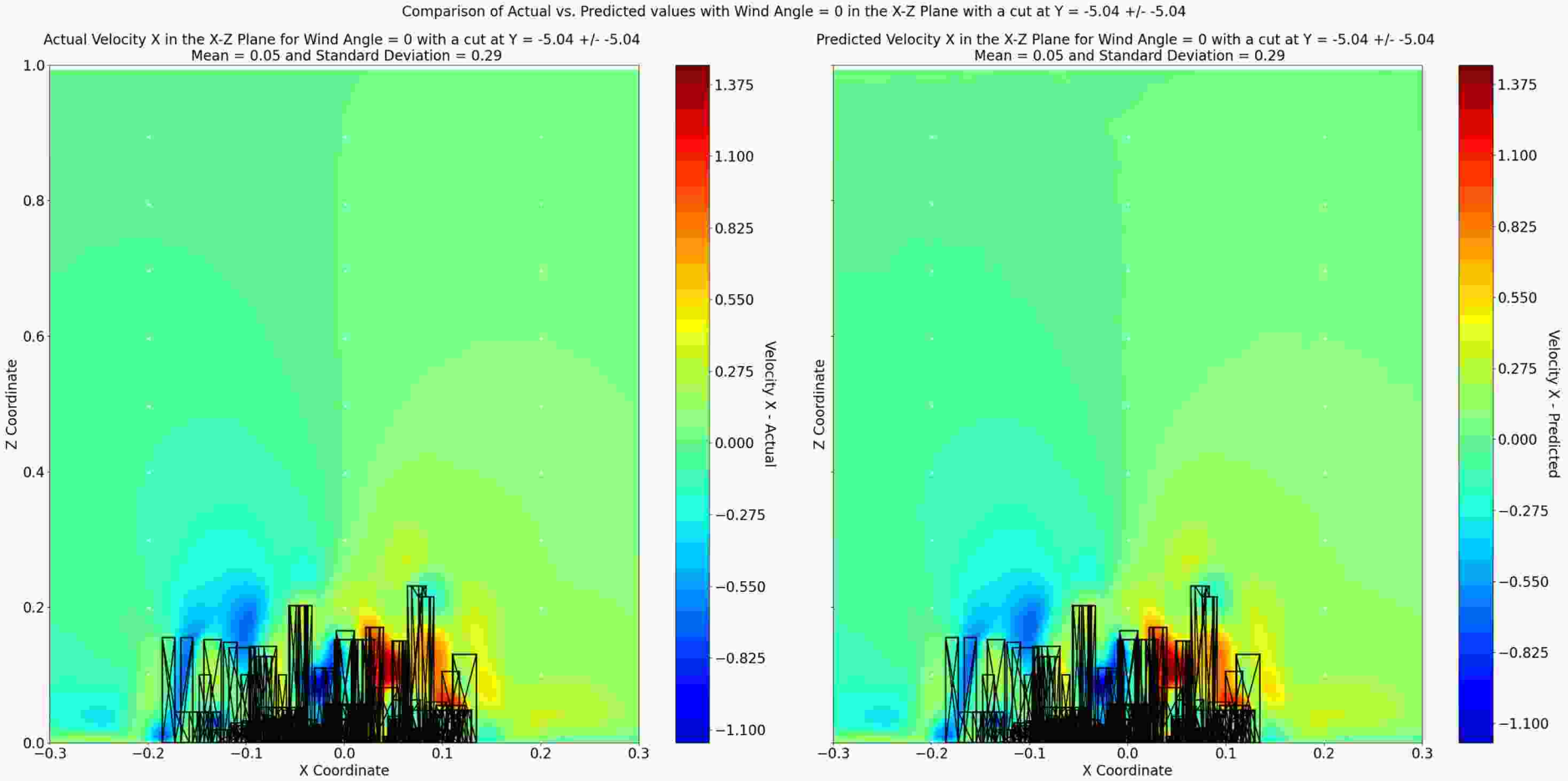

TurbVisc_Difference in the X-Z Plane for Wind Angle = 105 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.02
Z Coordinate
X Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.2
0.1
0.0
−0.1
−0.2


TurbVisc_Difference in the X-Z Plane for Wind Angle = 120 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.02
Z Coordinate
X Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.2
0.1
0.0
−0.1
−0.2

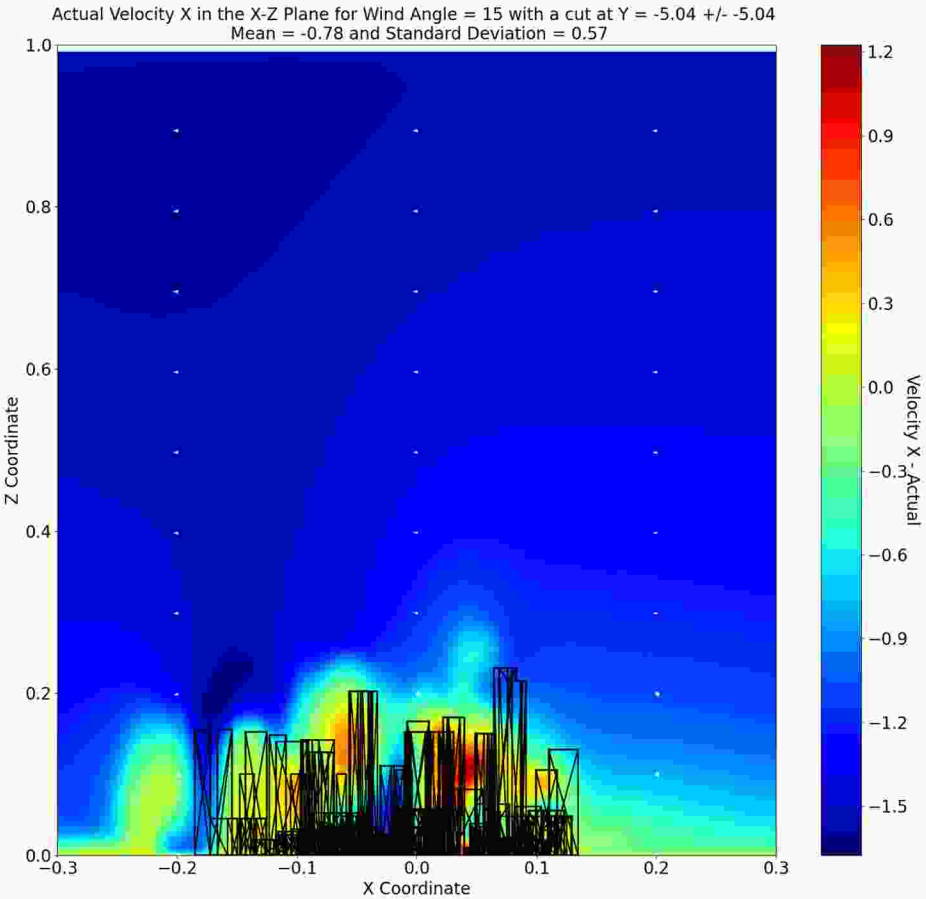

TurbVisc_Difference in the X-Z Plane for Wind Angle = 150 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.02
Z Coordinate
X Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.2
0.1
0.0
−0.1
−0.2

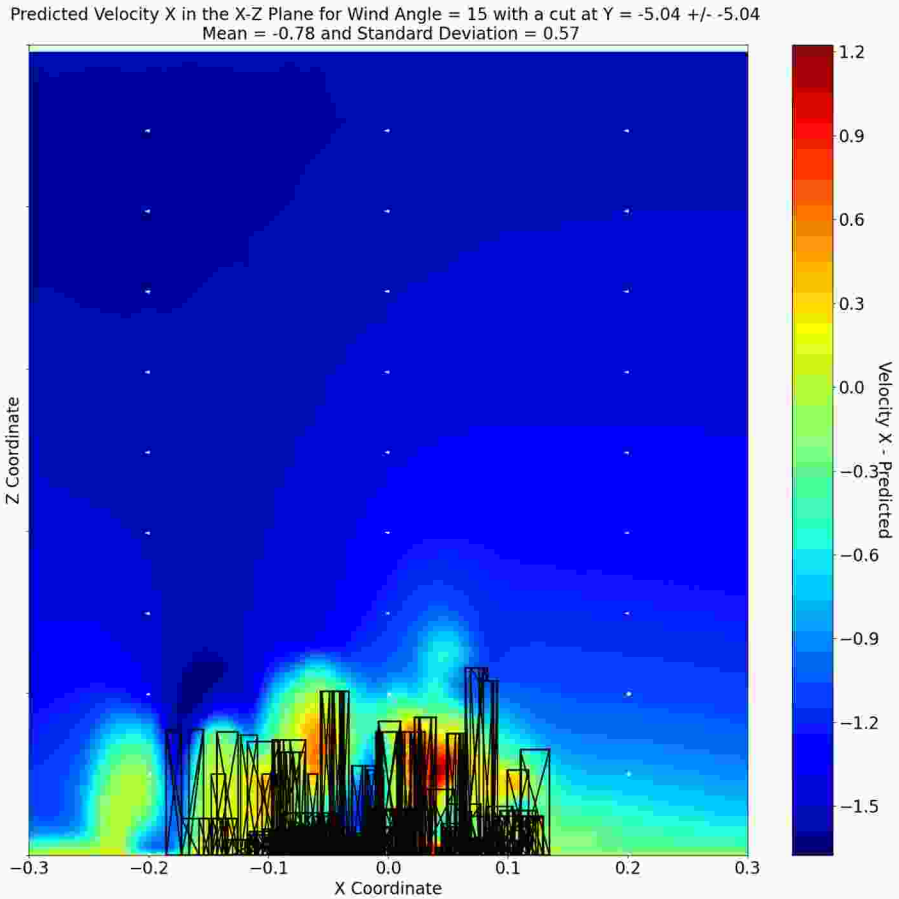

TurbVisc_Difference in the X-Z Plane for Wind Angle = 165 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.02
Z Coordinate
X Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3


TurbVisc_Difference in the X-Z Plane for Wind Angle = 180 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.02
Z Coordinate
X Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.2
0.1
0.0
−0.1
−0.2

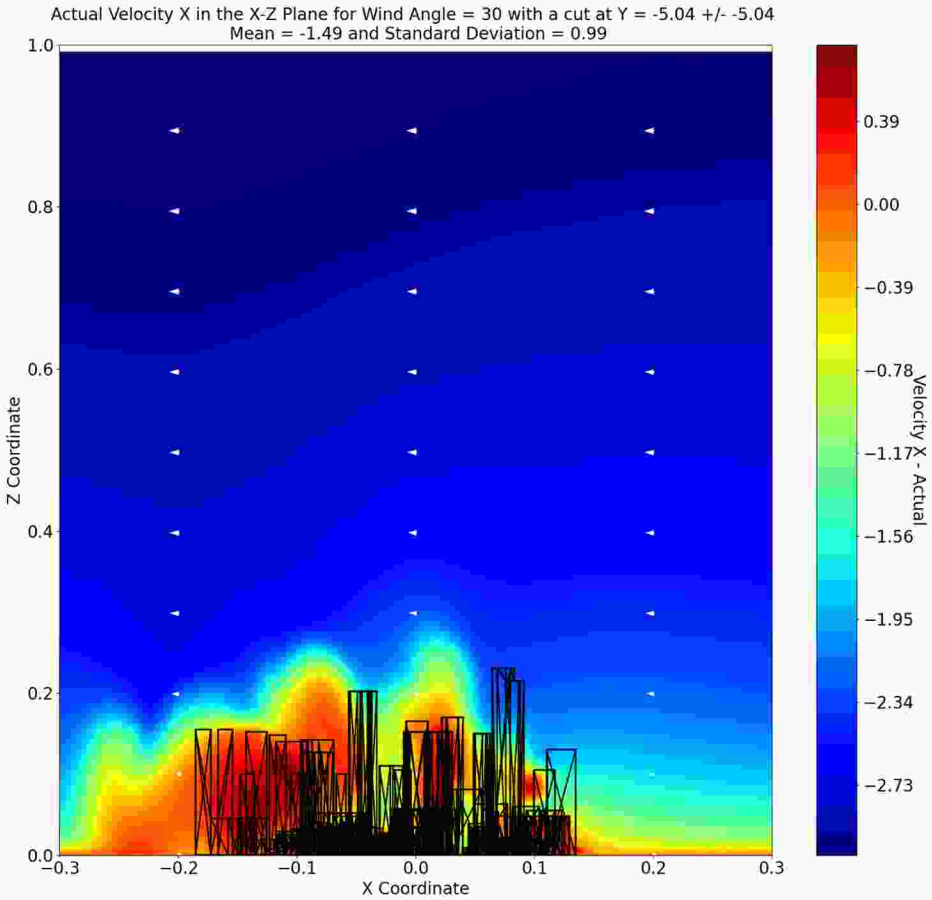

Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04
Actual Velocity X in the X-Z Plane for Wind Angle = 0 with a cut at Y = -5.04 +/- -5.04
Mean = 0.05 and Standard Deviation = 0.29
Predicted Velocity X in the X-Z Plane for Wind Angle = 0 with a cut at Y = -5.04 +/- -5.04
Mean = 0.05 and Standard Deviation = 0.29
Z Coordinate
X Coordinate
Velocity X - Actual
Velocity X - Predicted
1.375
1.100
0.825
0.550
0.275
0.000
−0.275
−0.550
−0.825
−1.100
0.0
0.2
0.4
0.6
0.8
1.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3

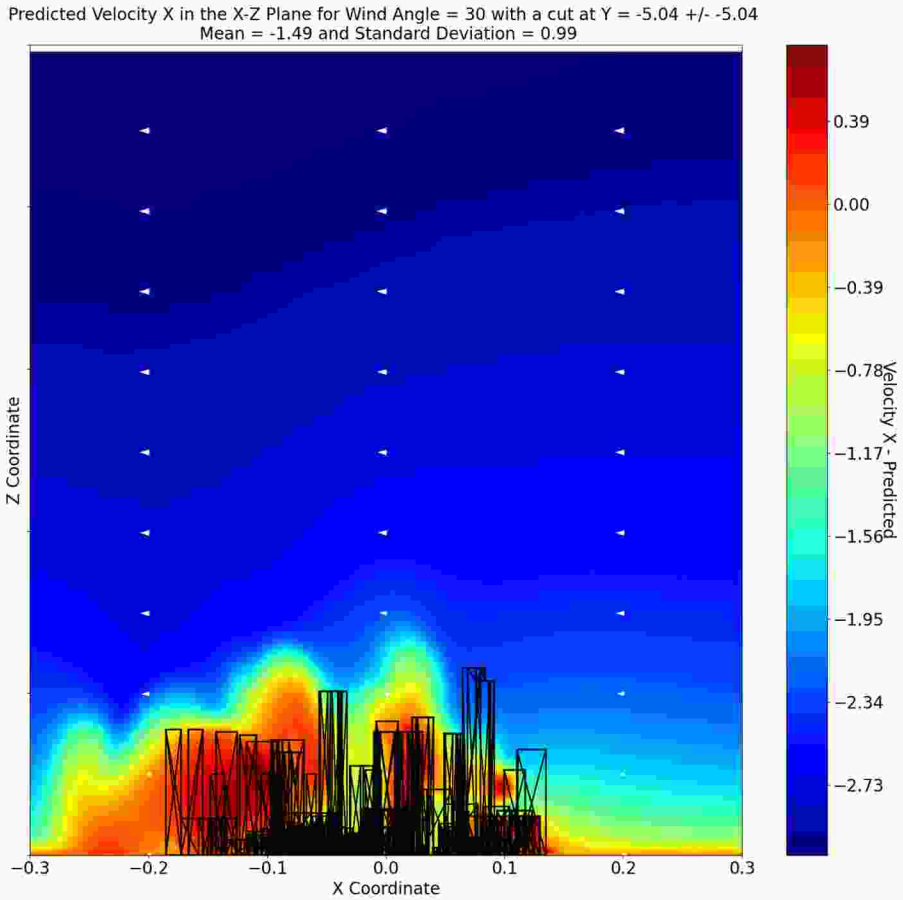
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



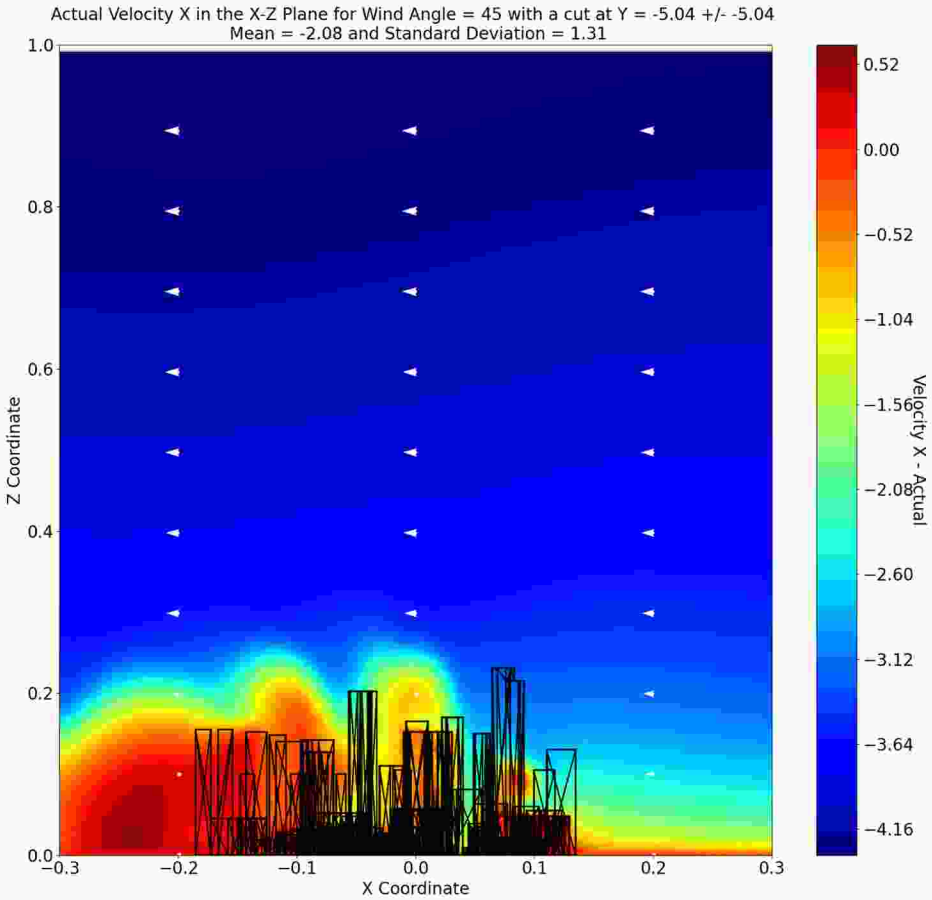


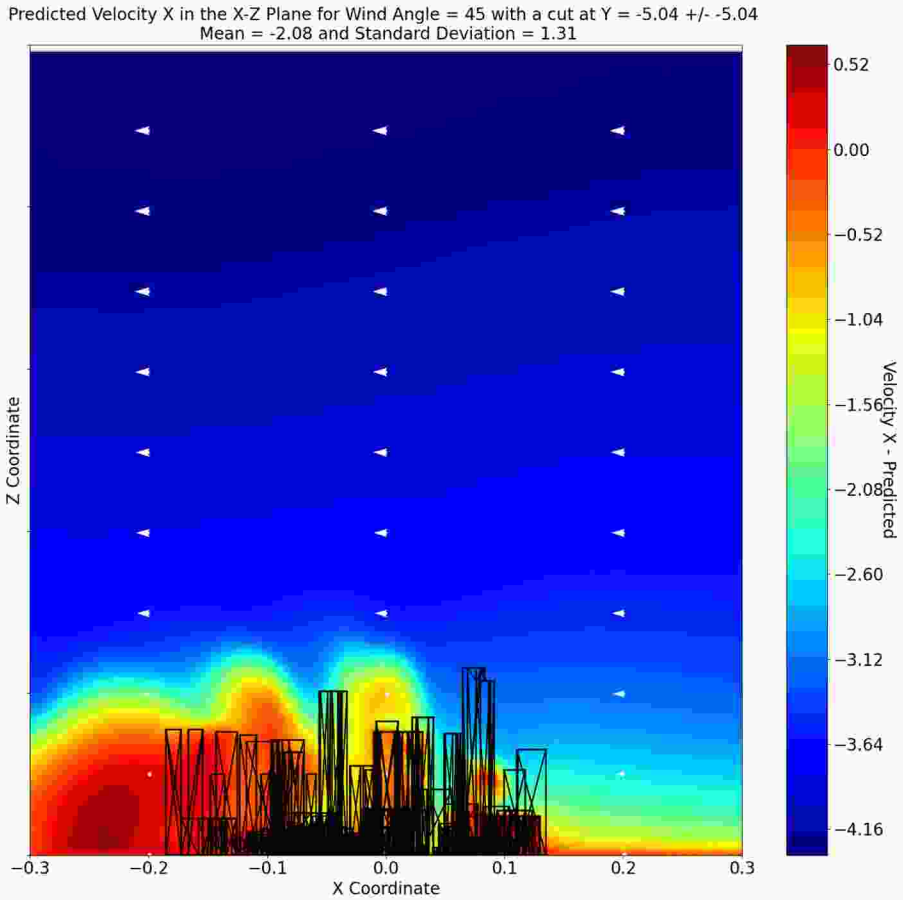
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



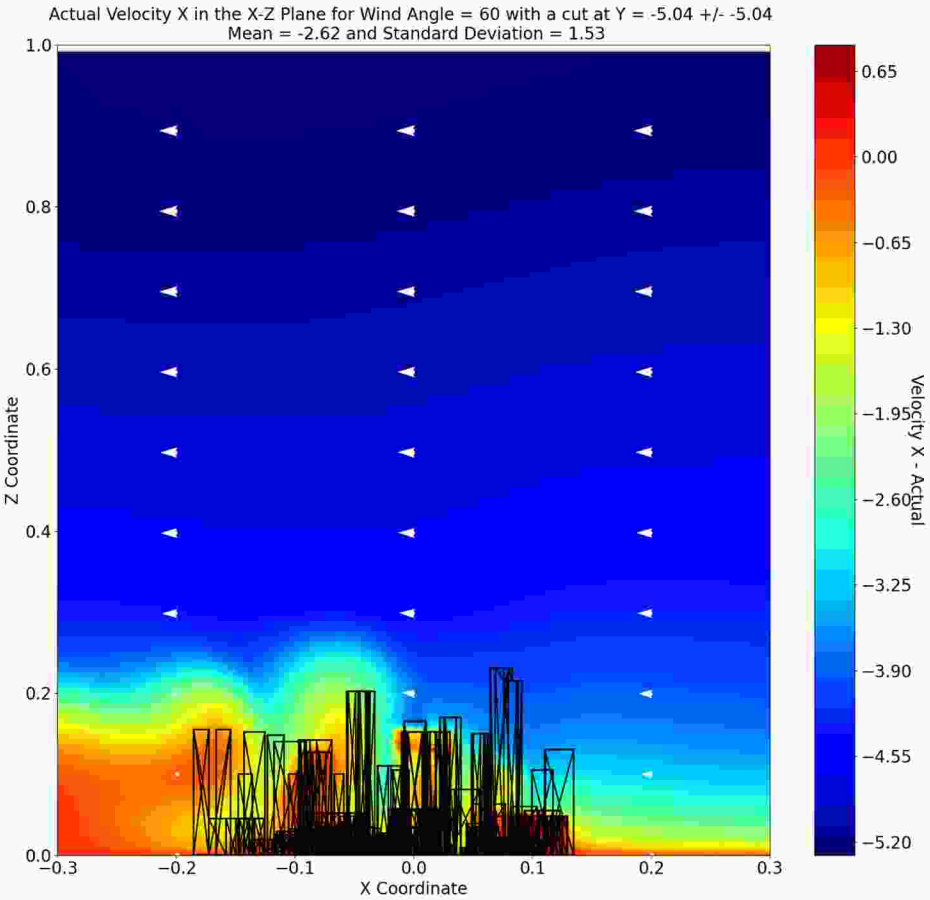


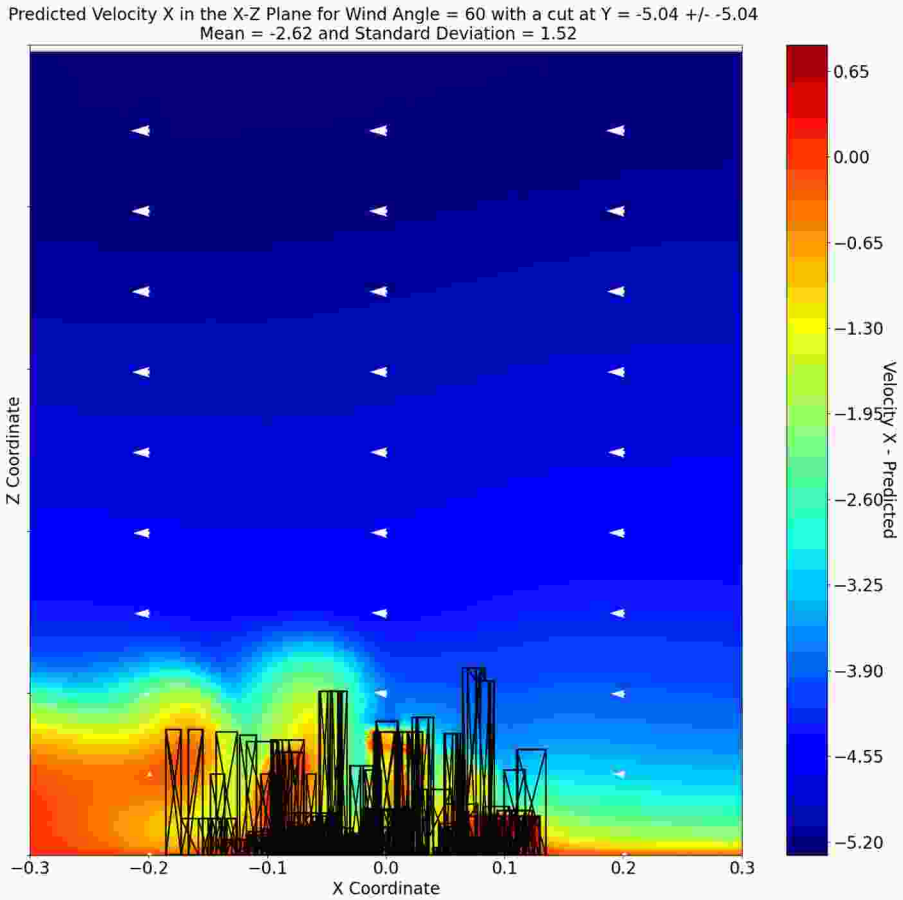
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



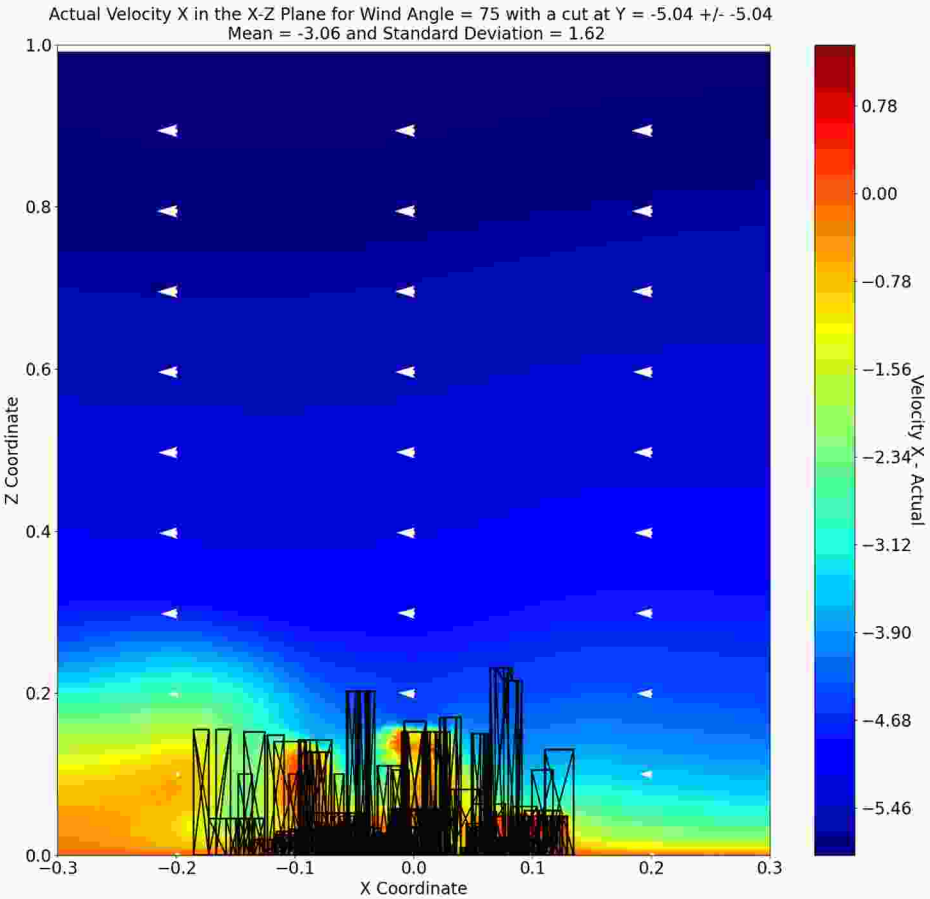


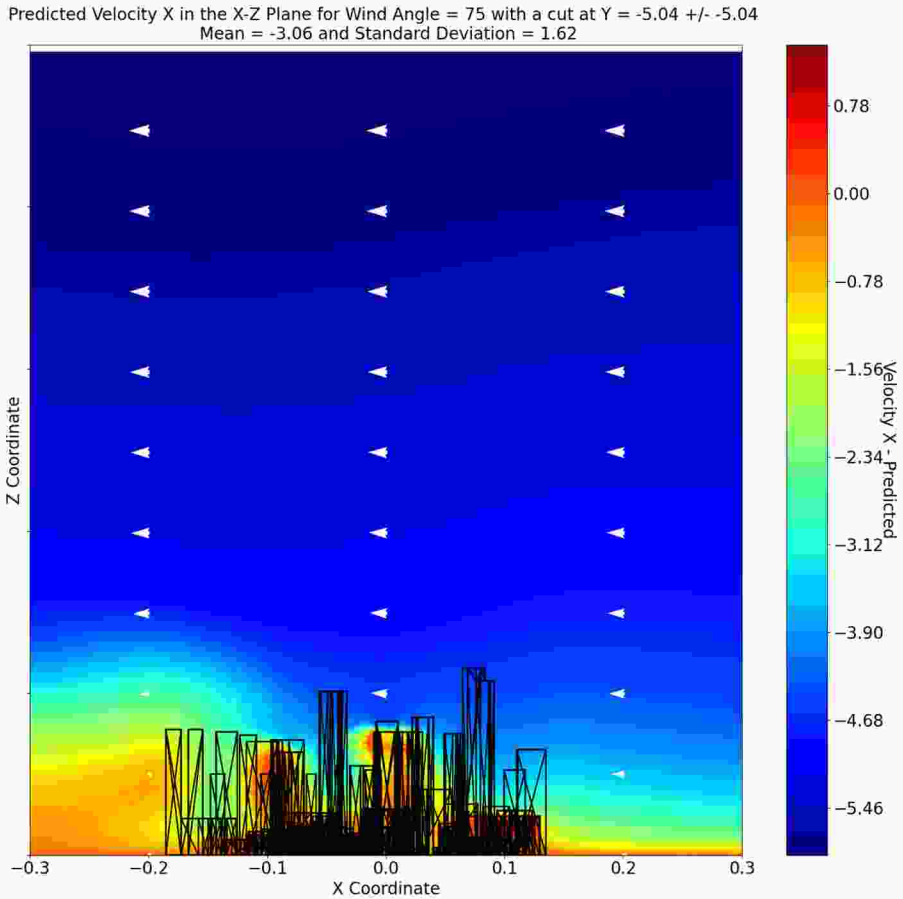
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



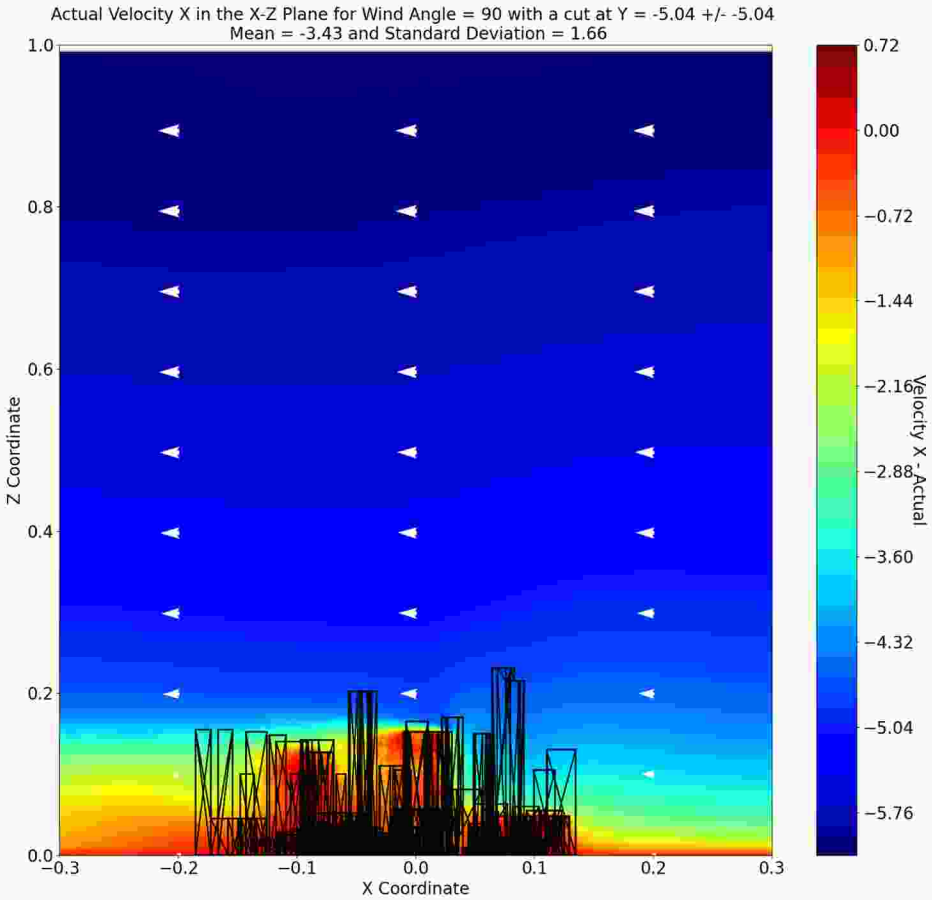


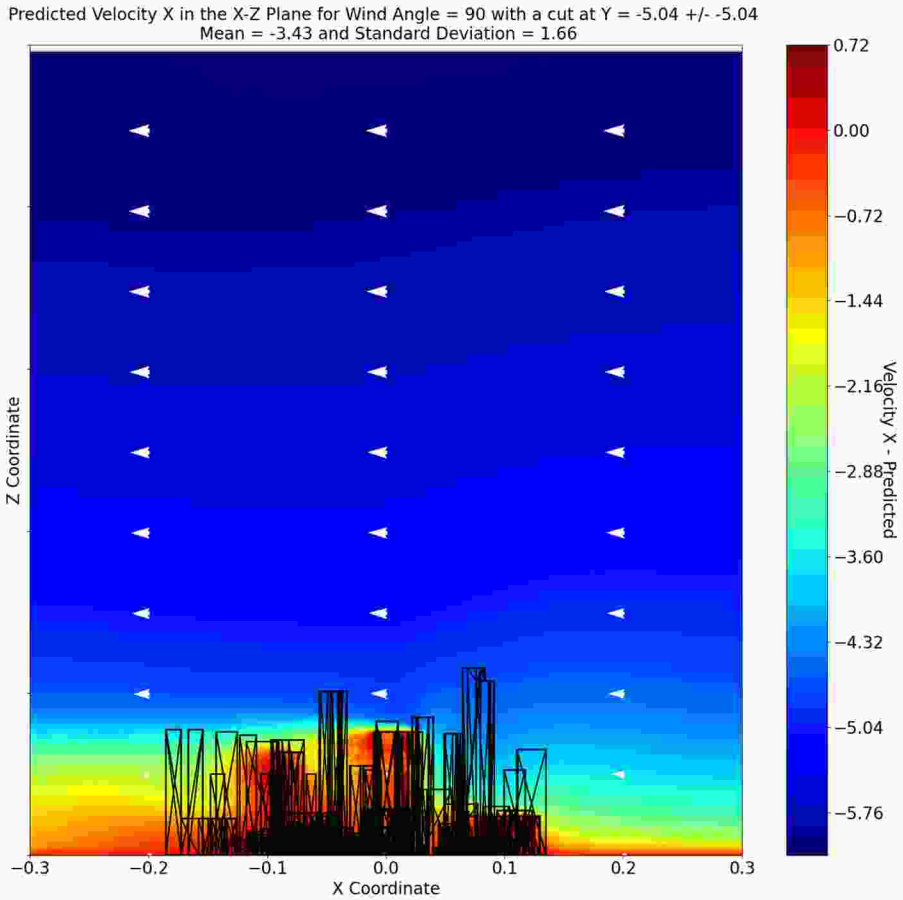
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



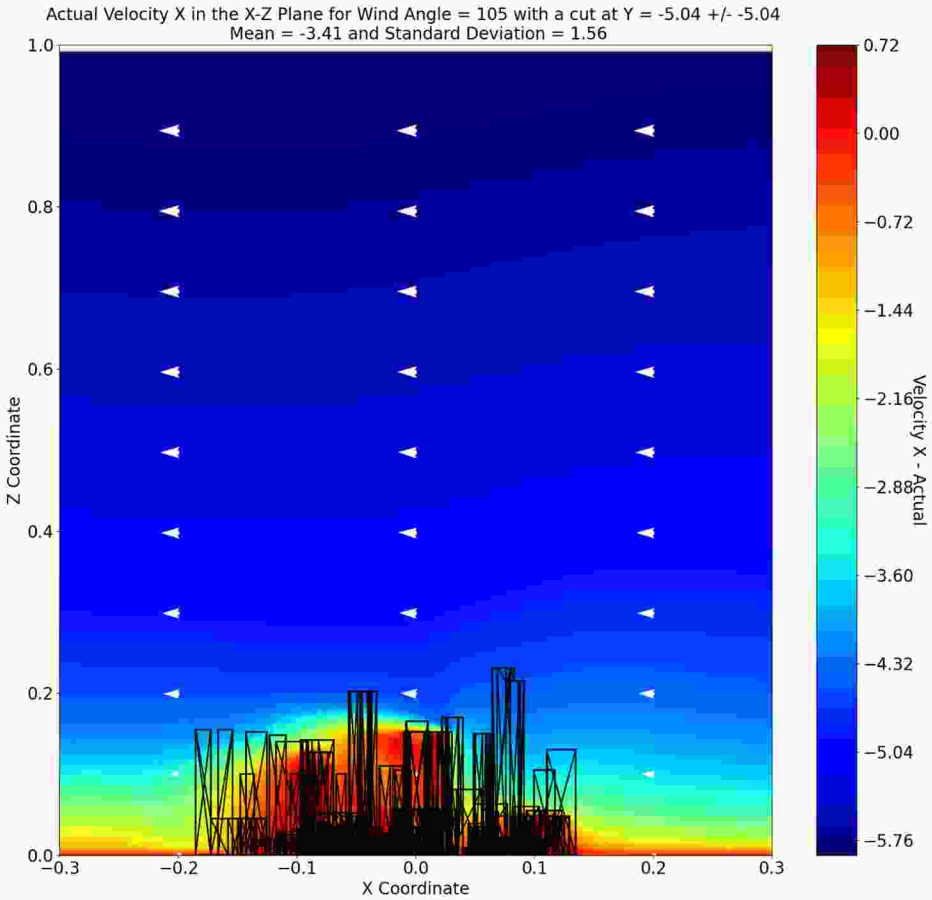


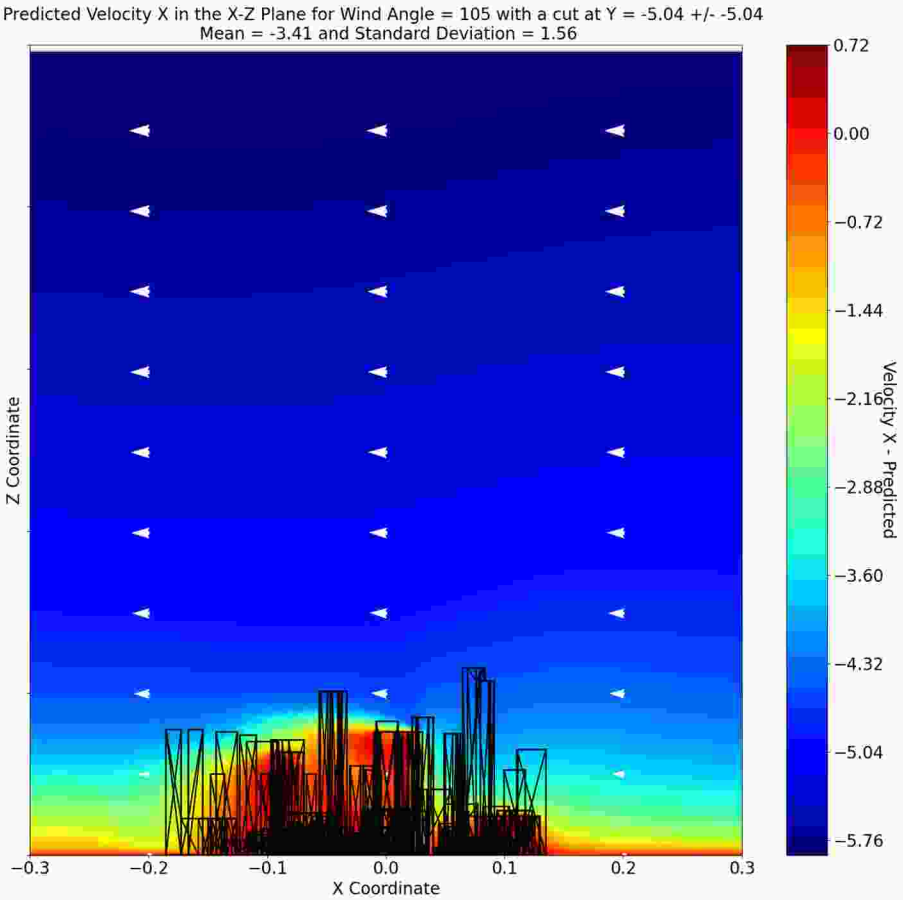
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



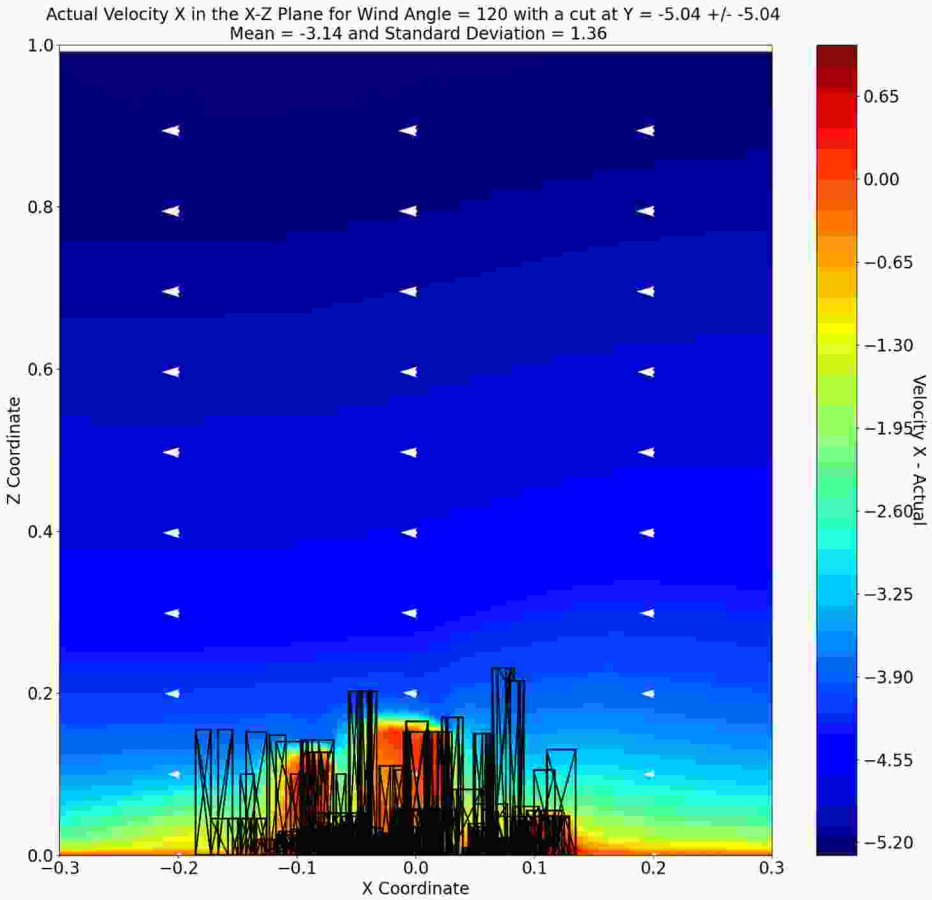


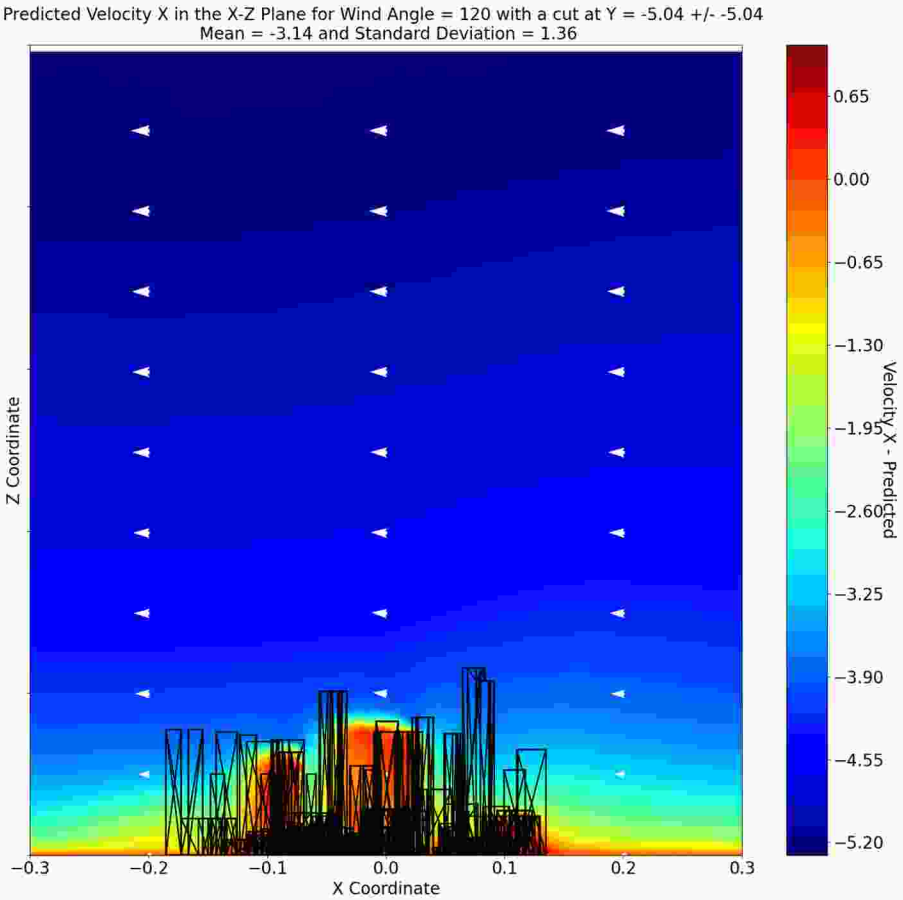
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



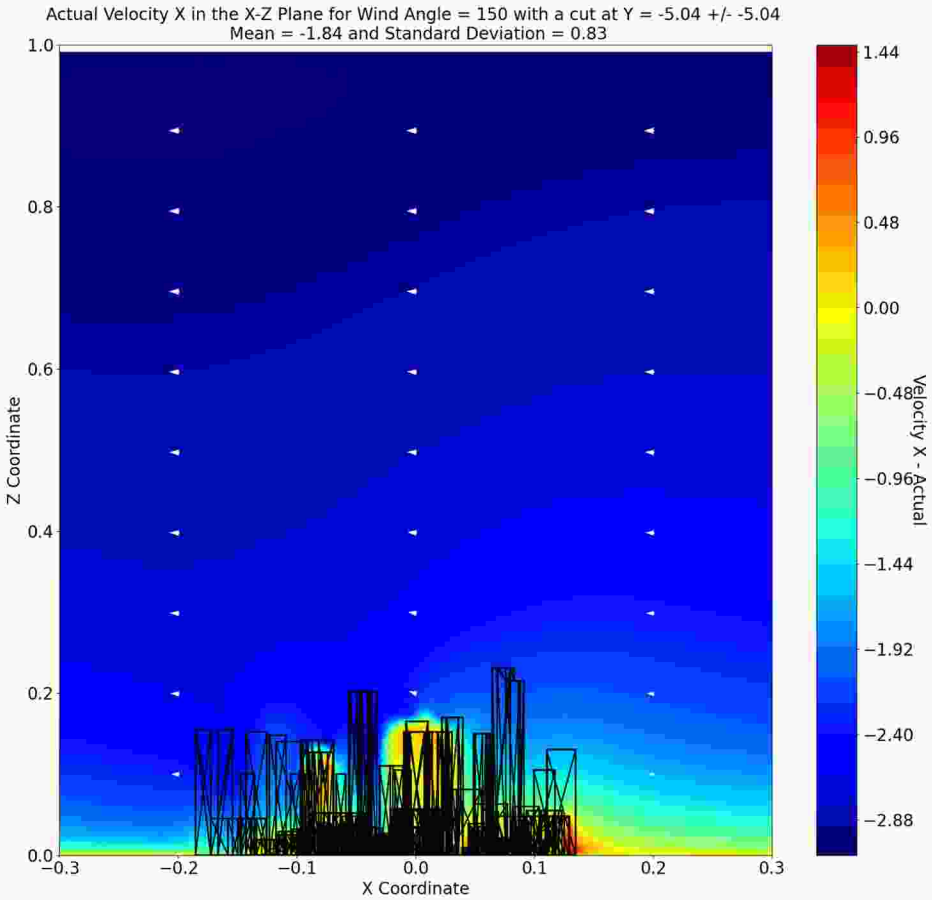


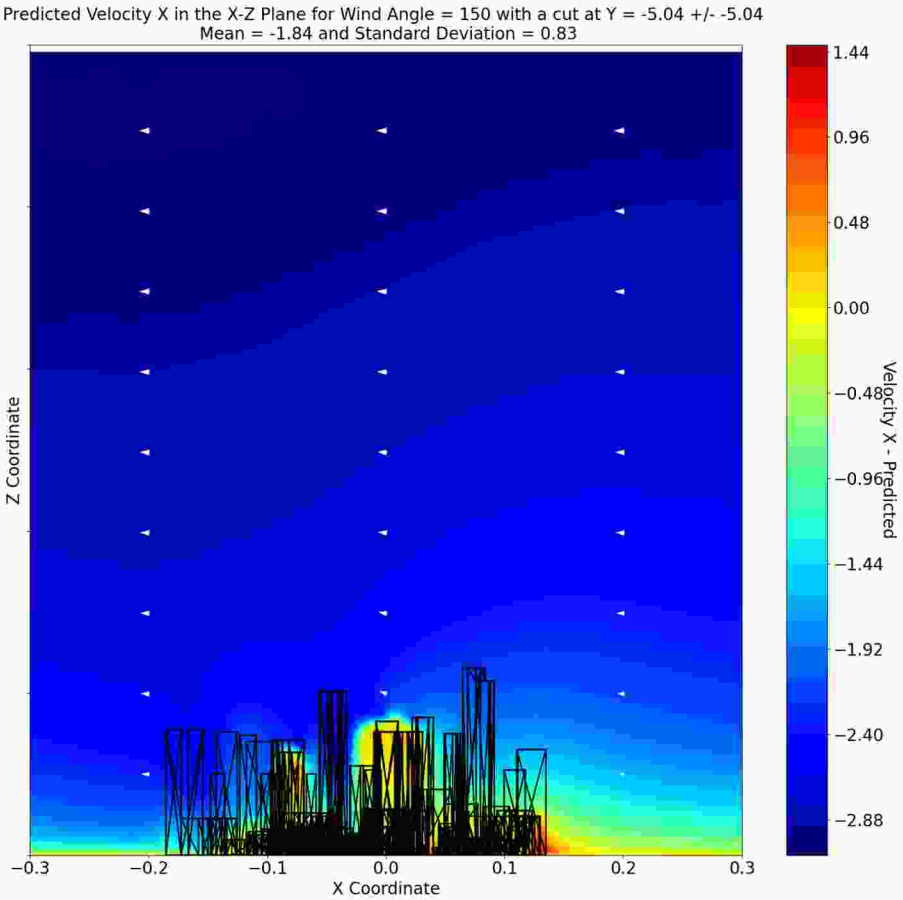
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



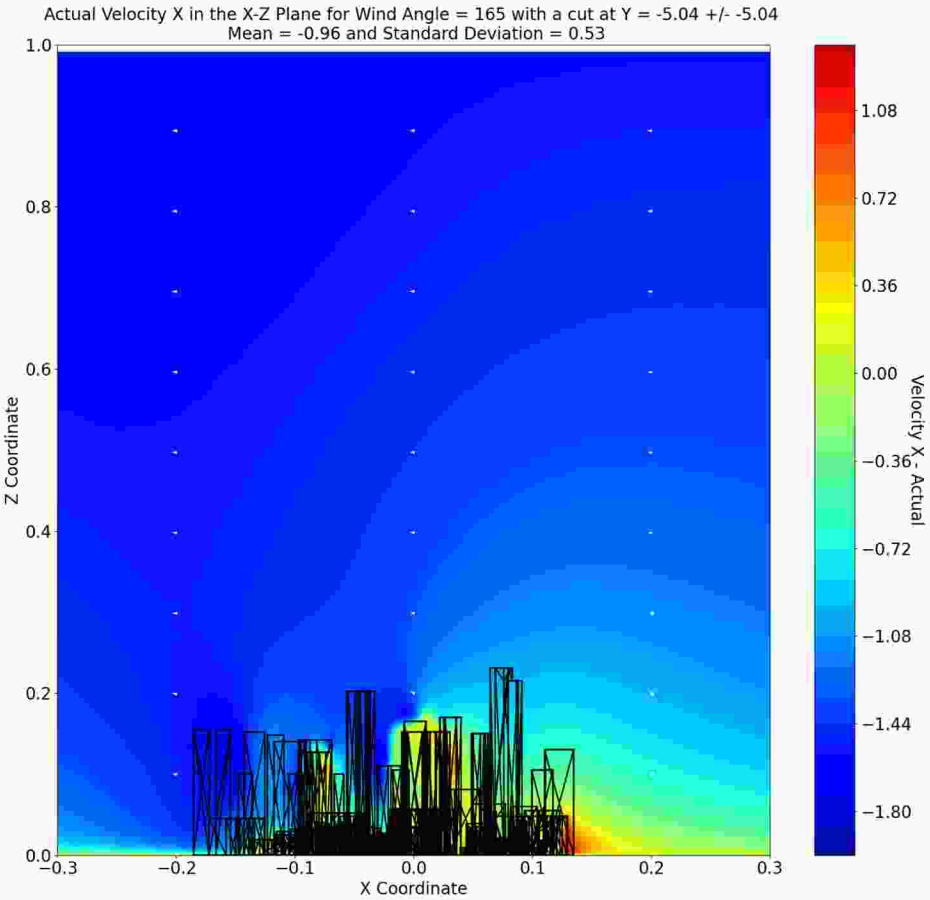


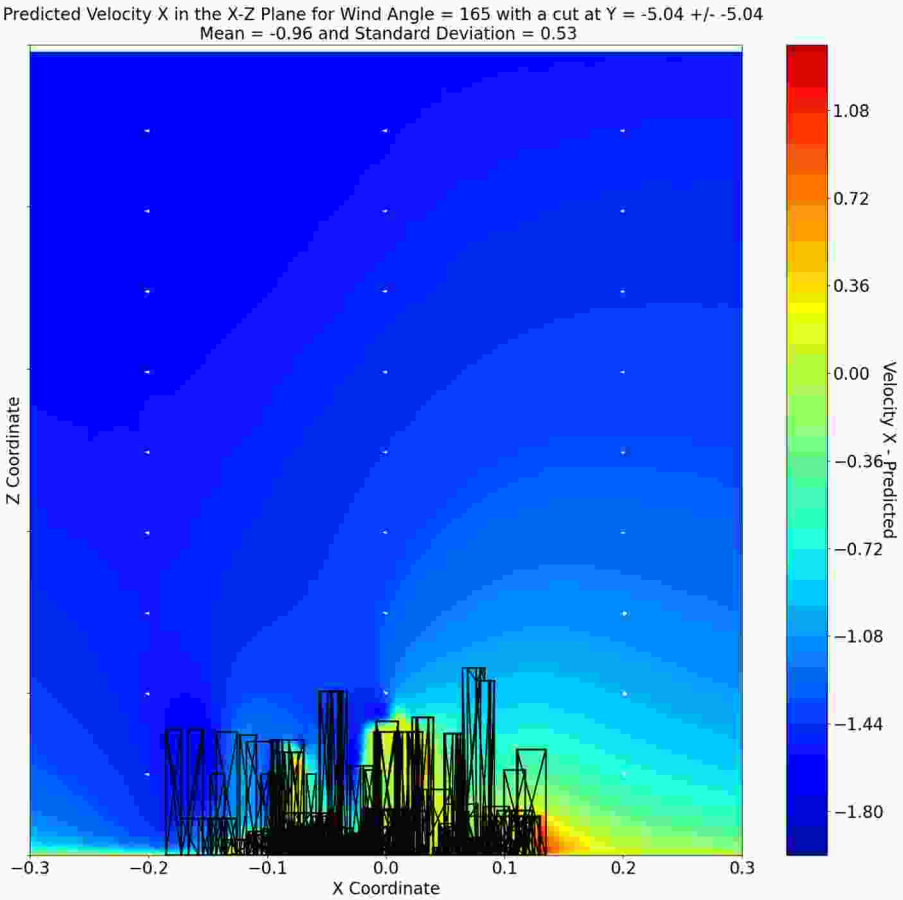
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



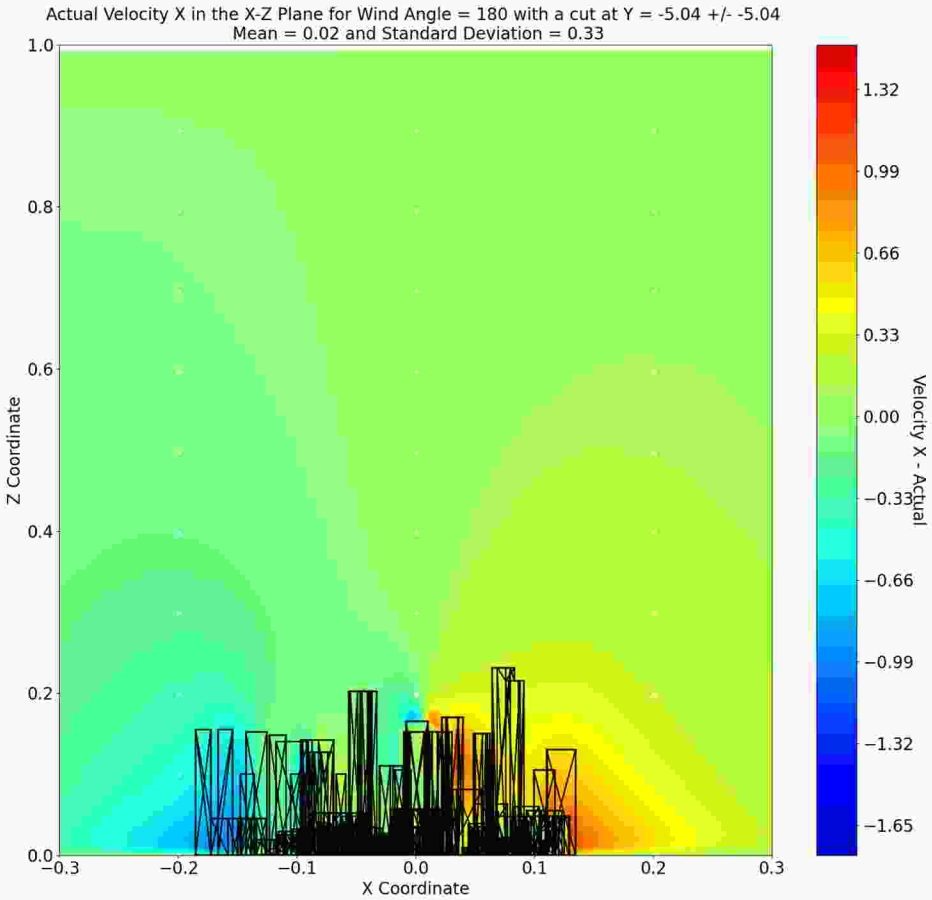


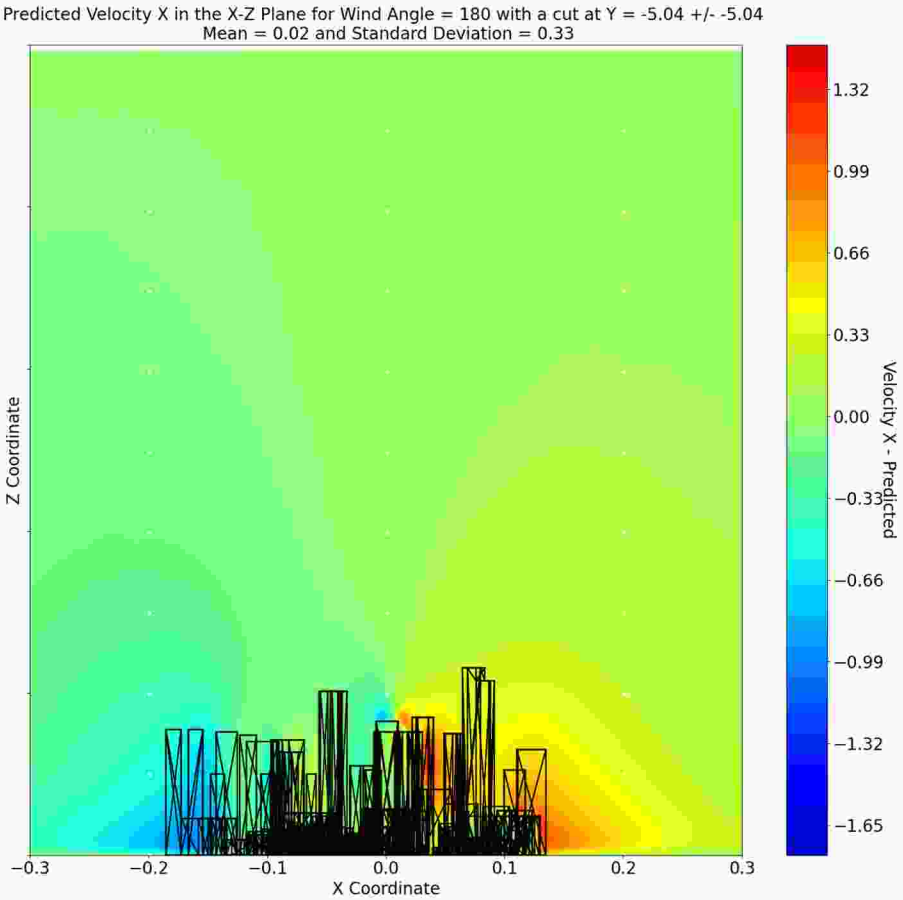
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



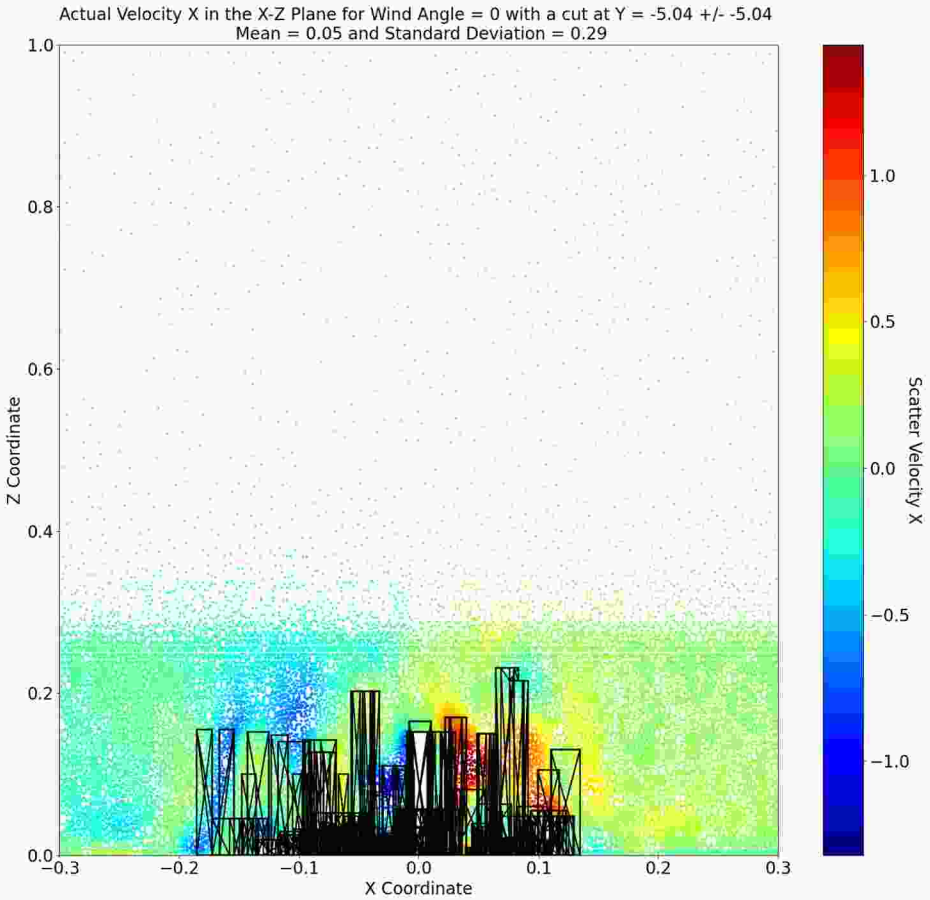


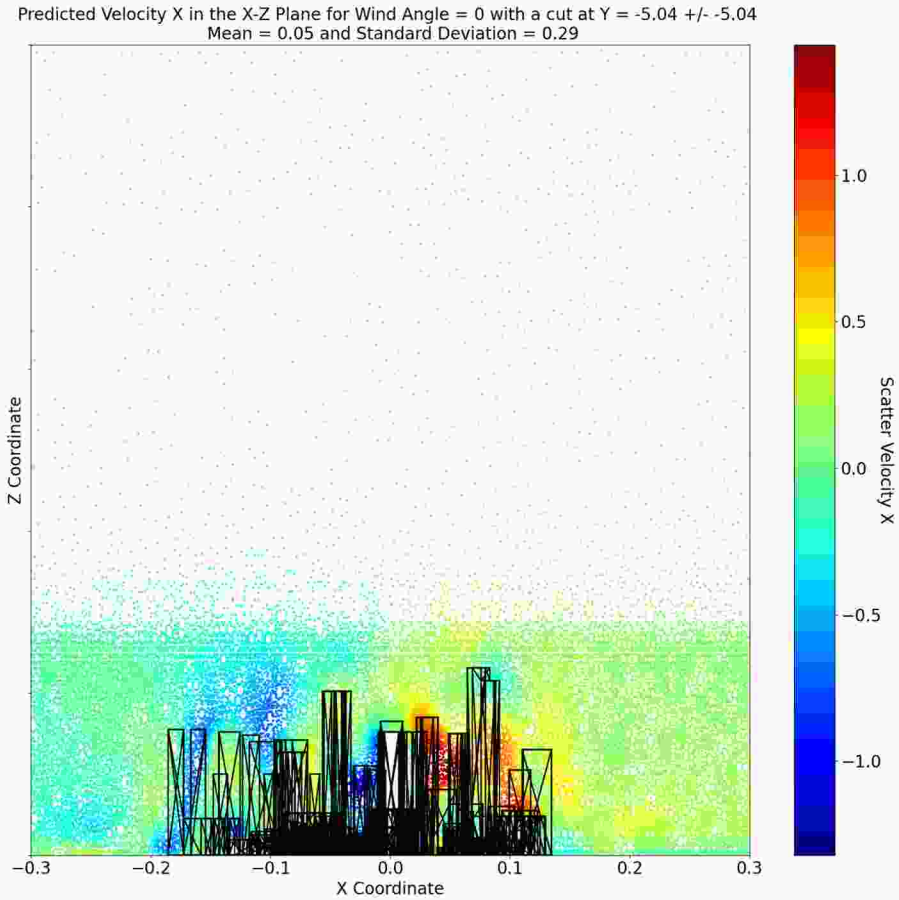
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



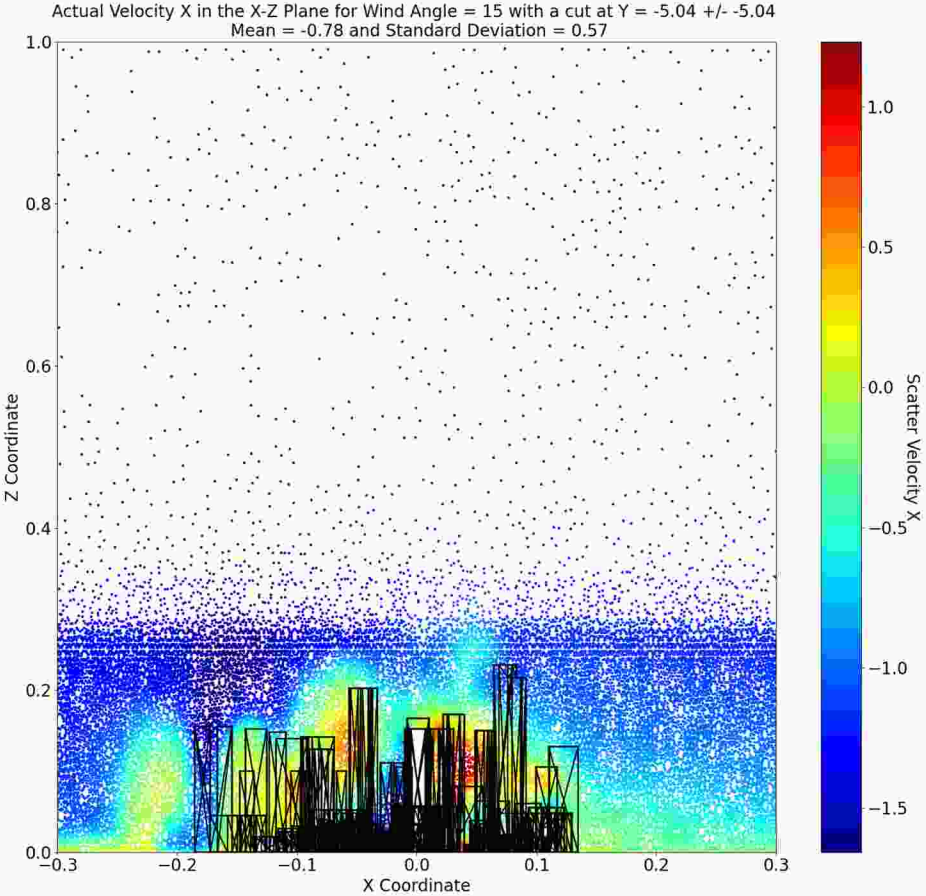


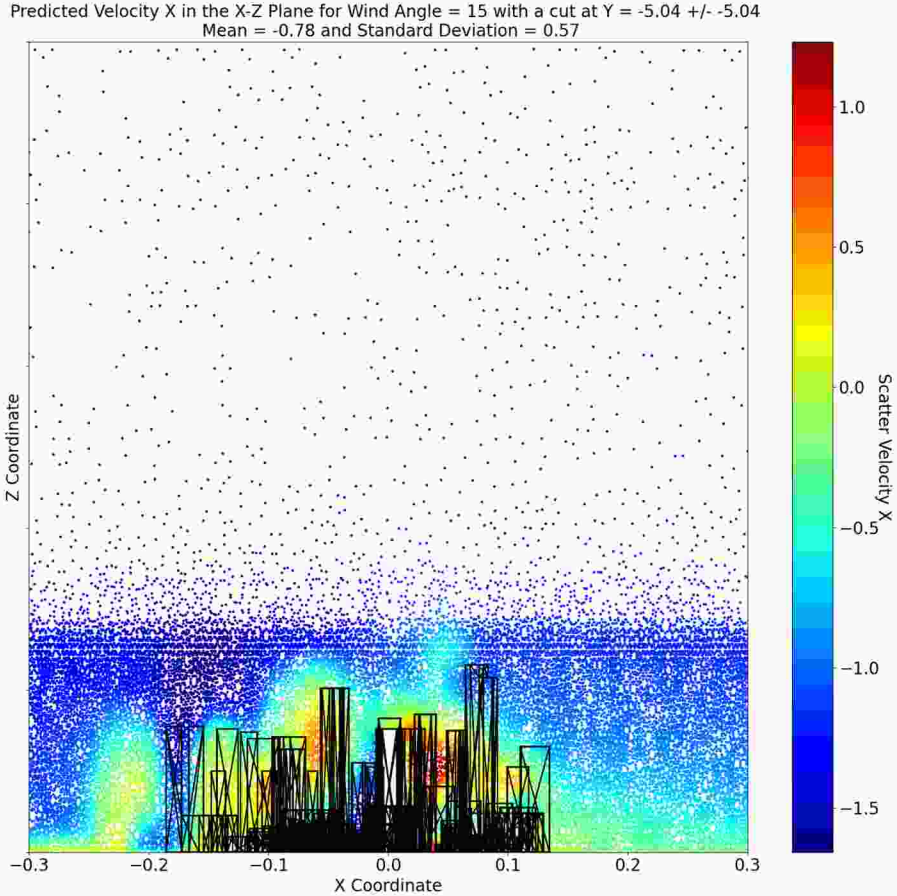
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



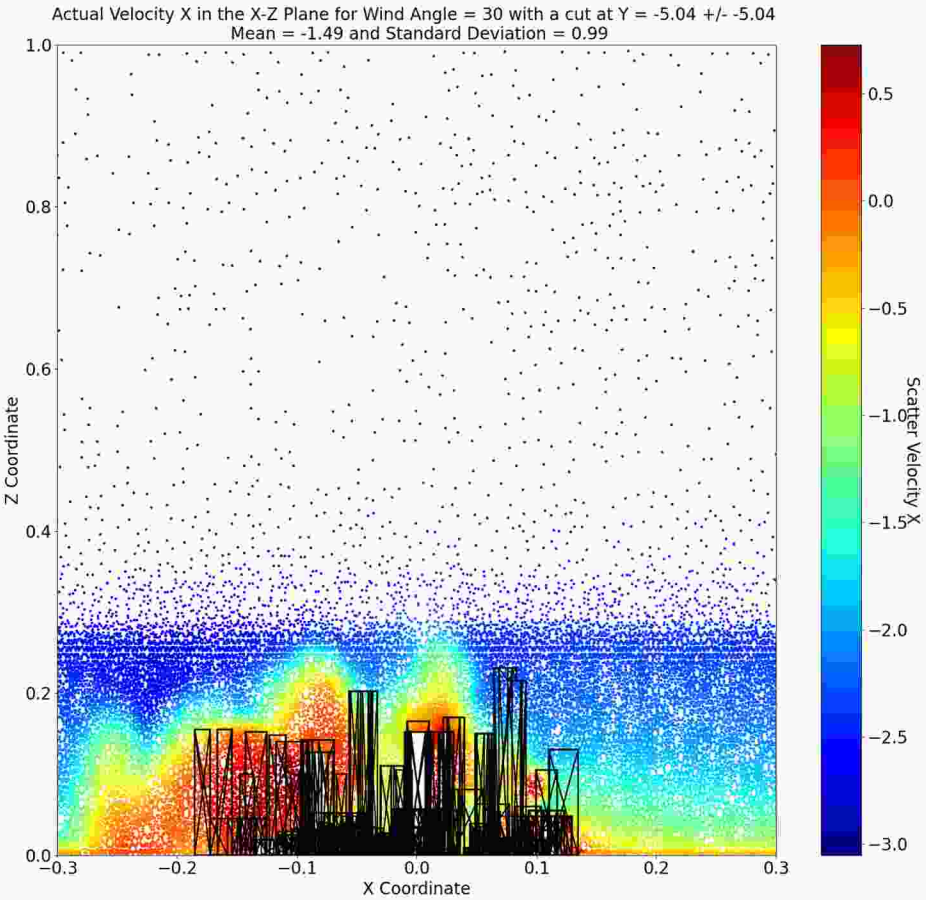


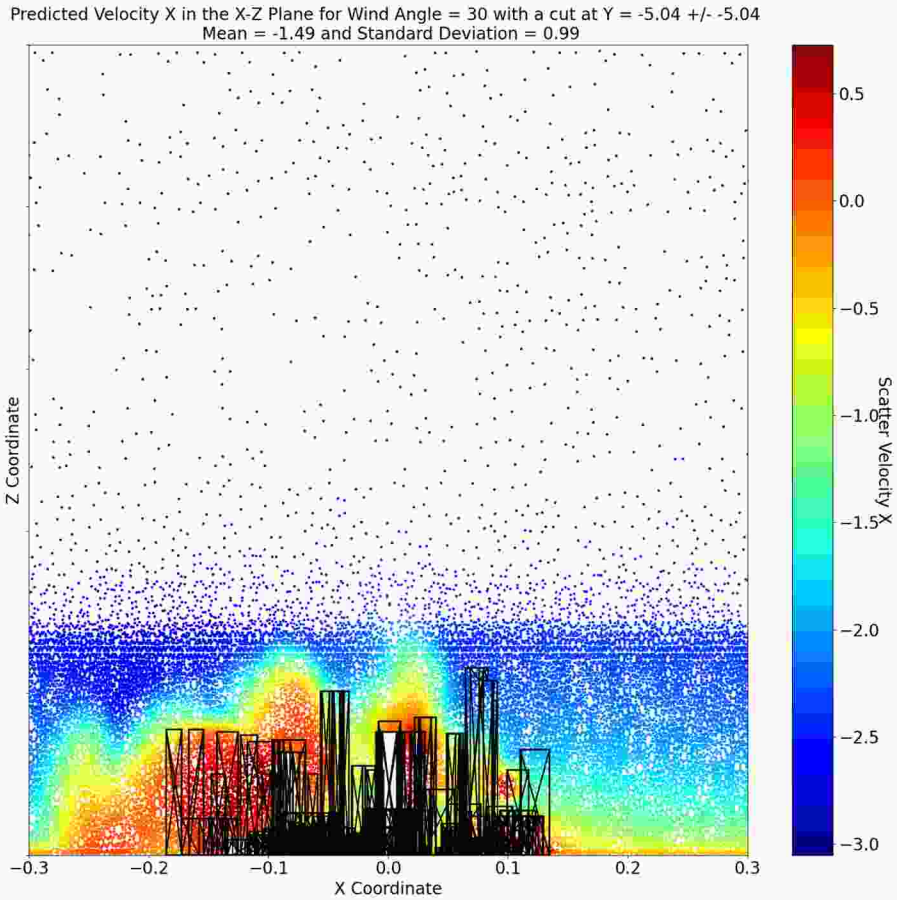
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



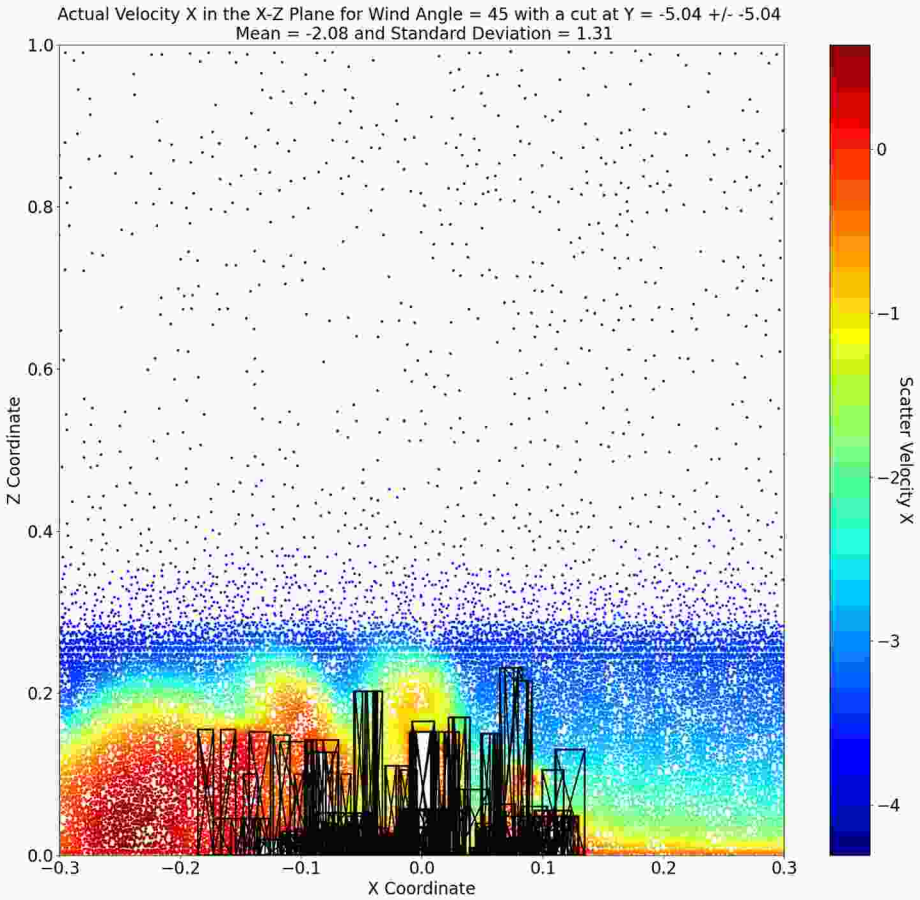


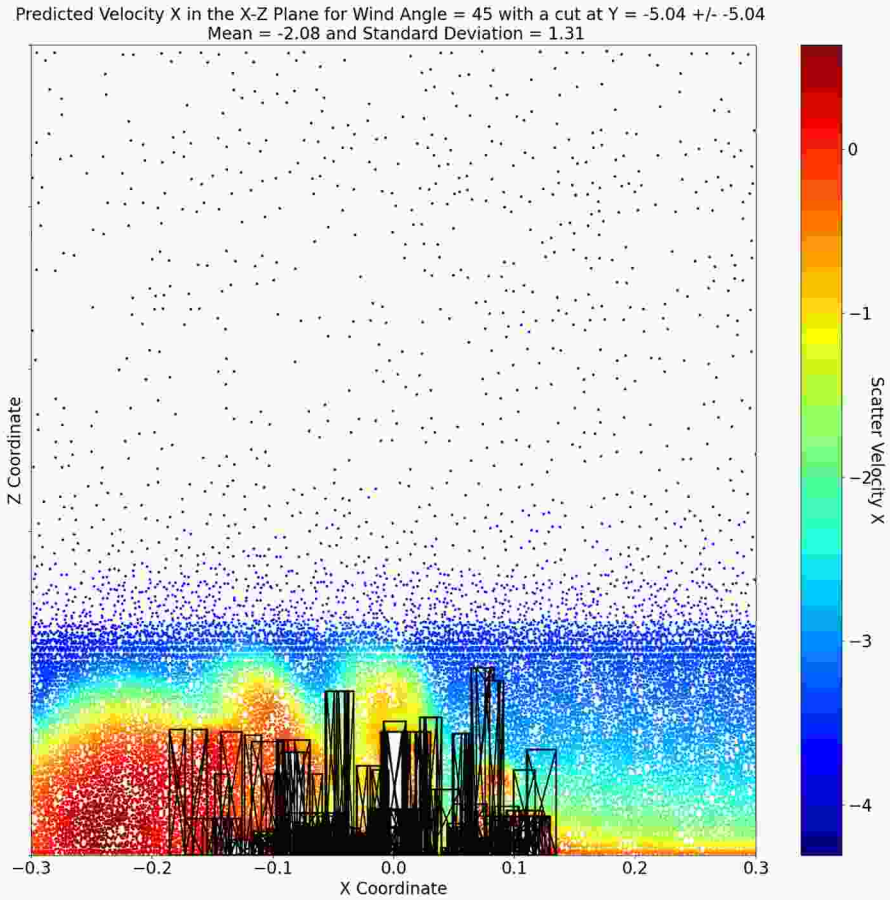
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



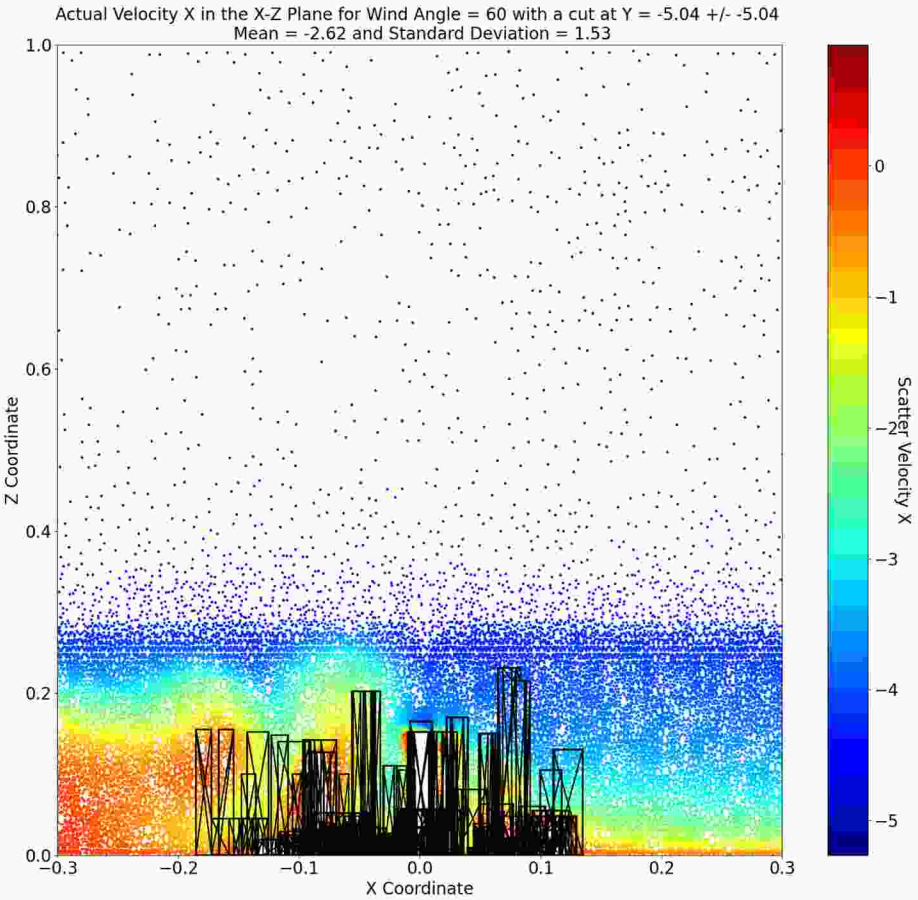


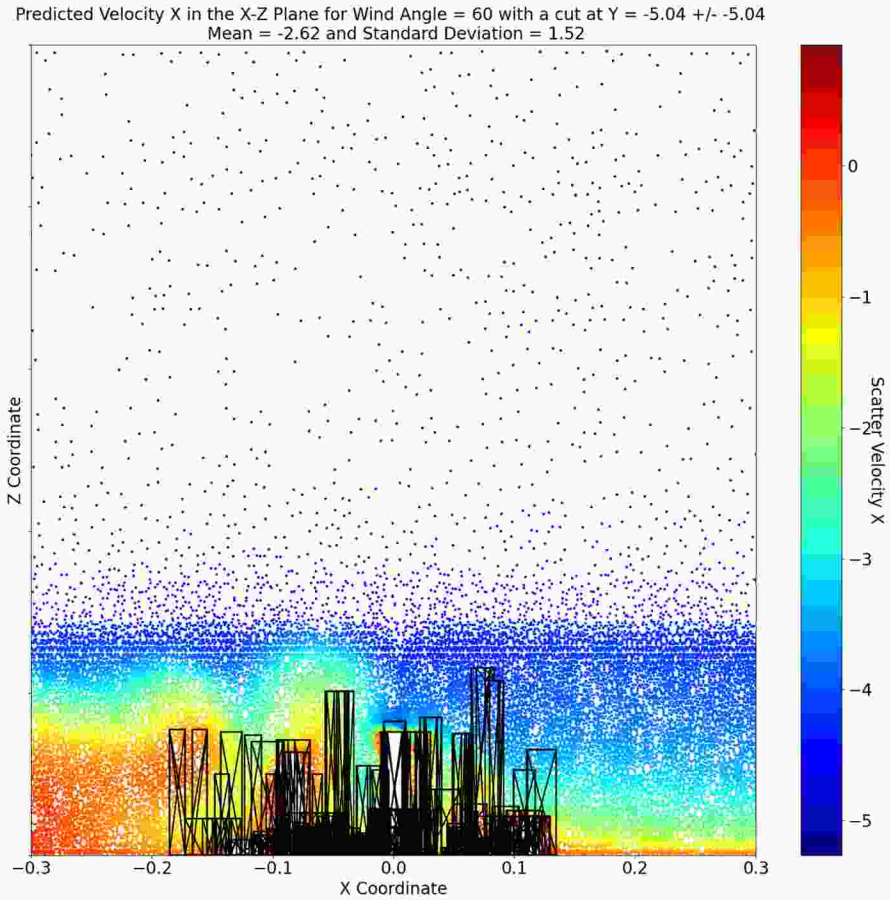
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



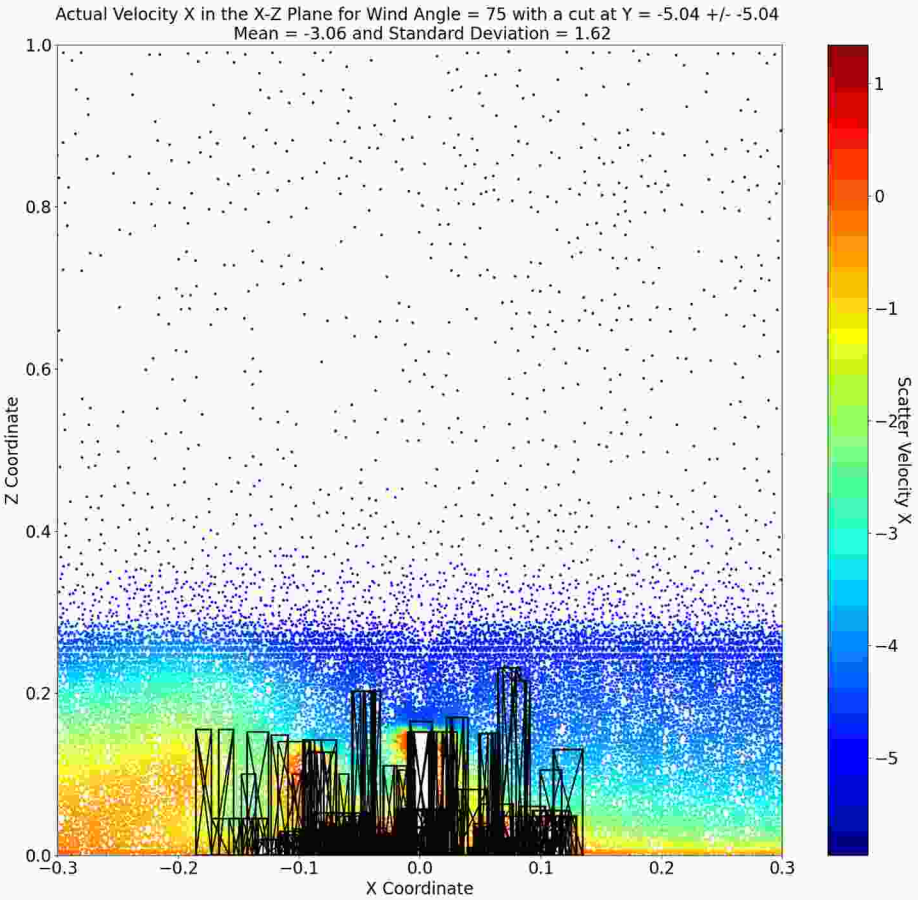


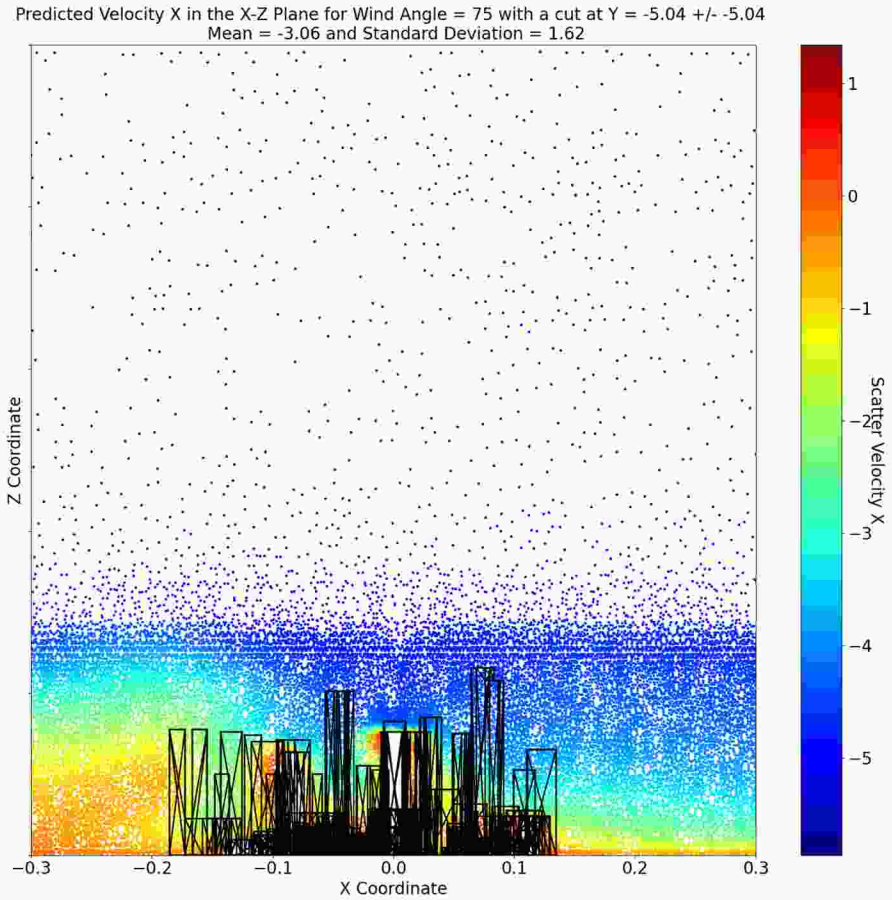
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



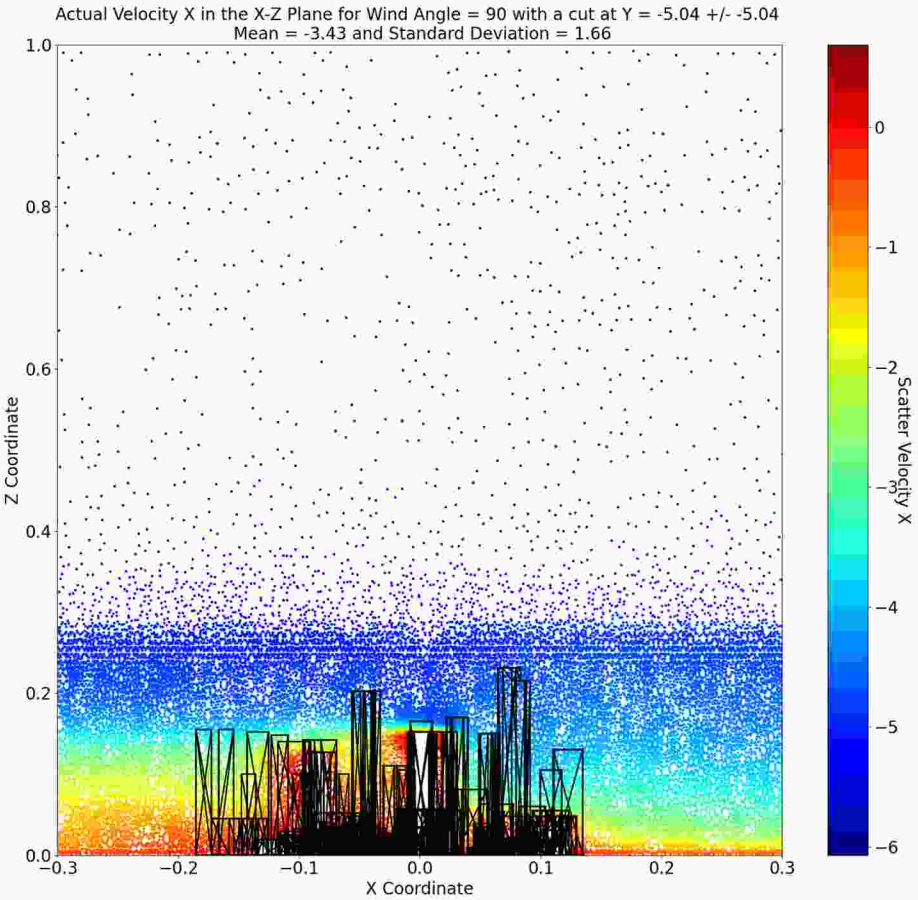


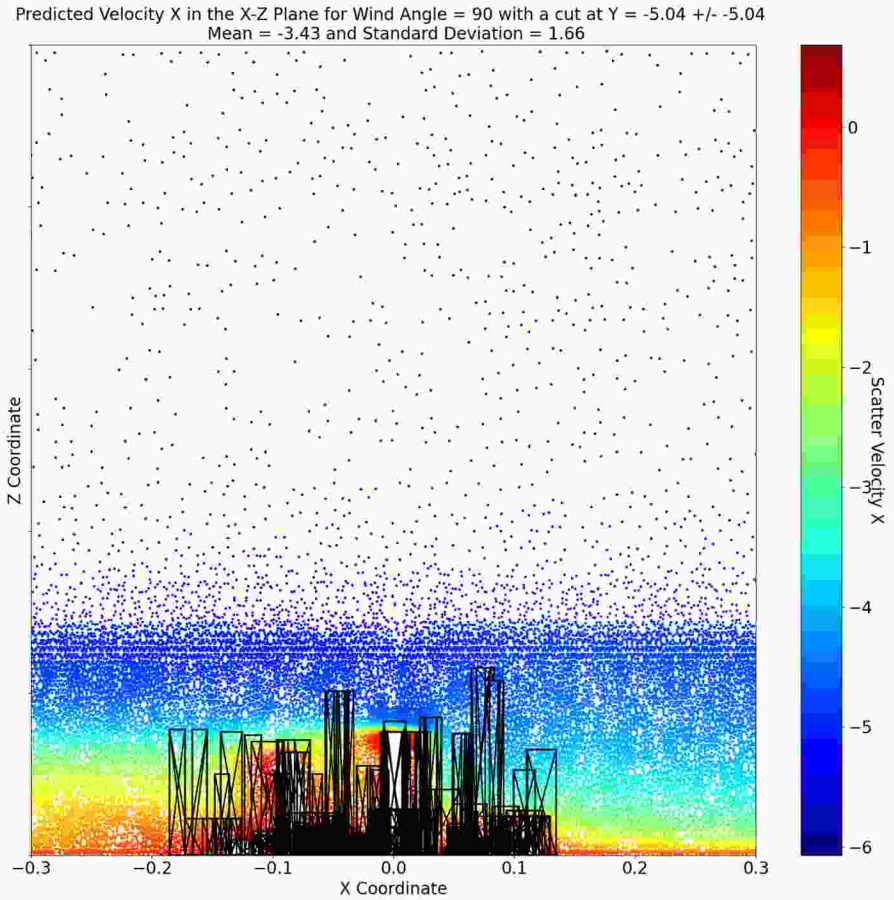
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



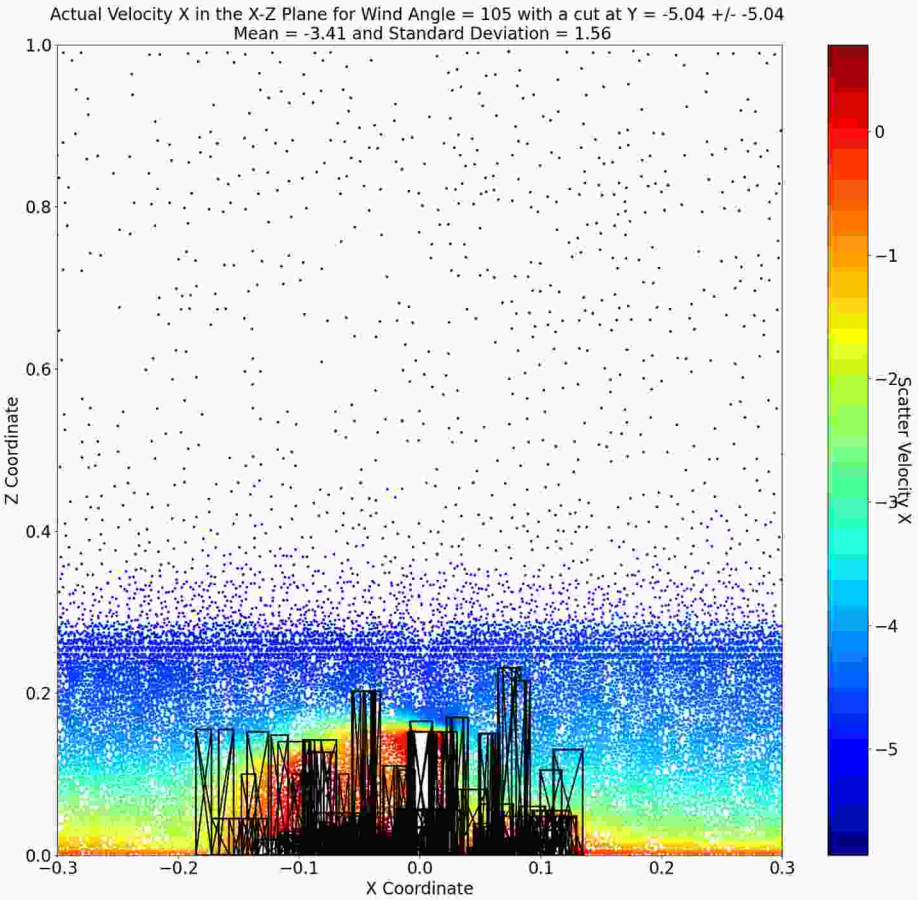


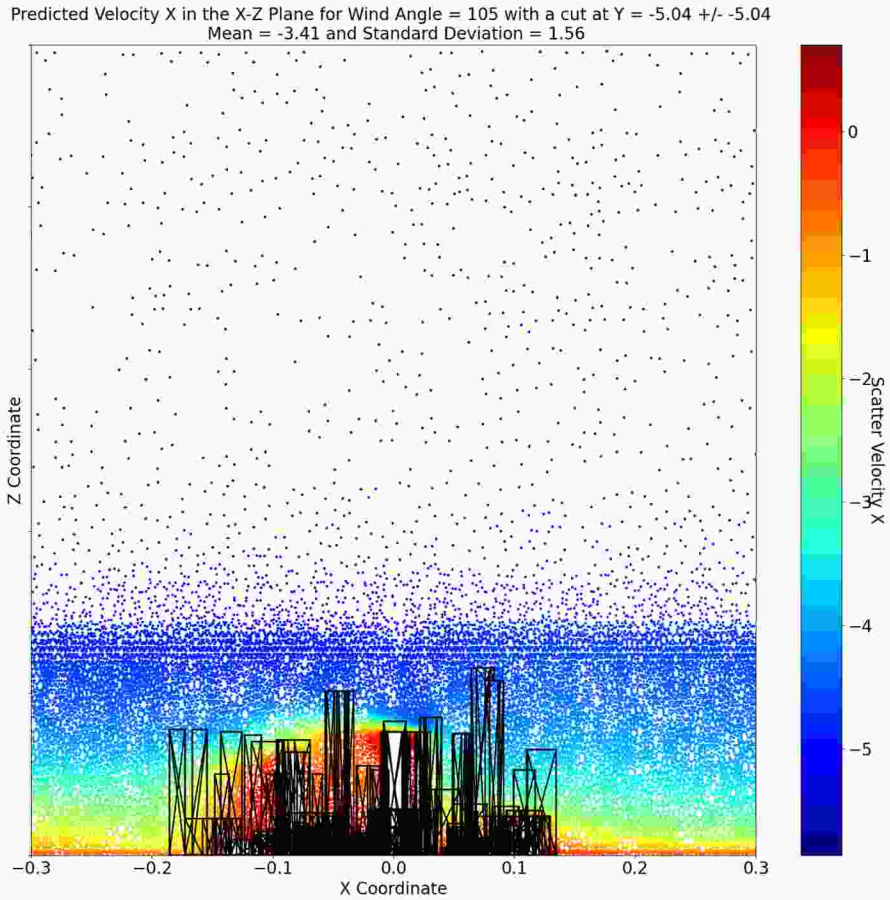
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



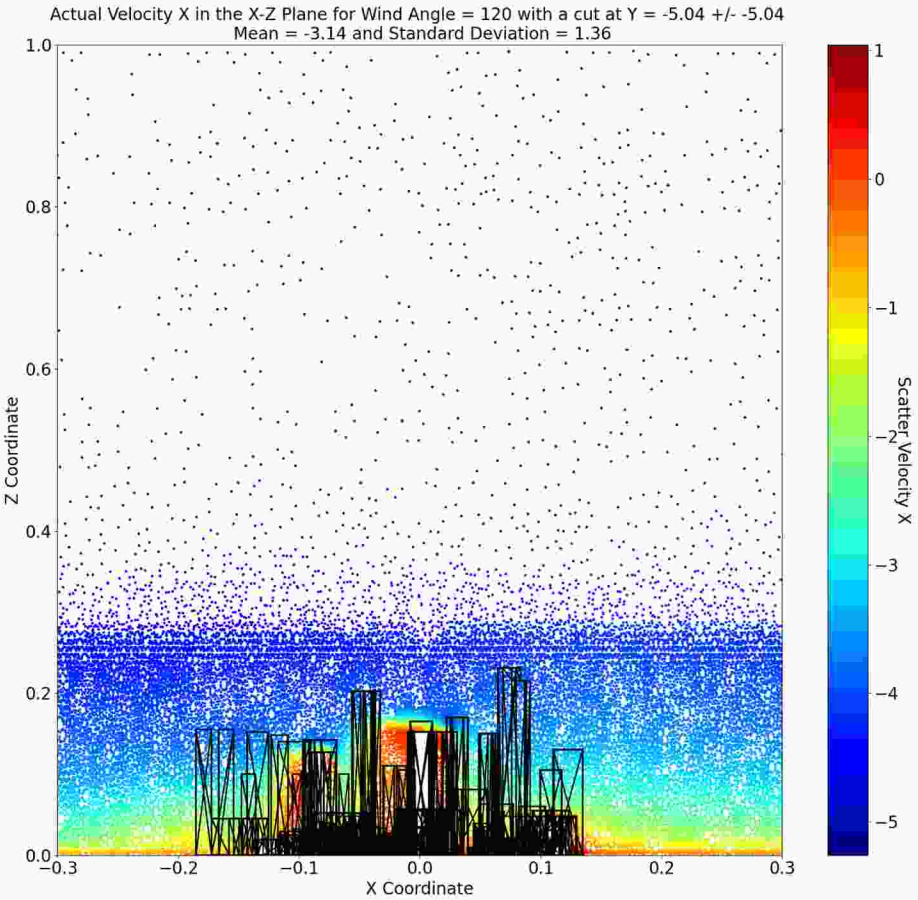


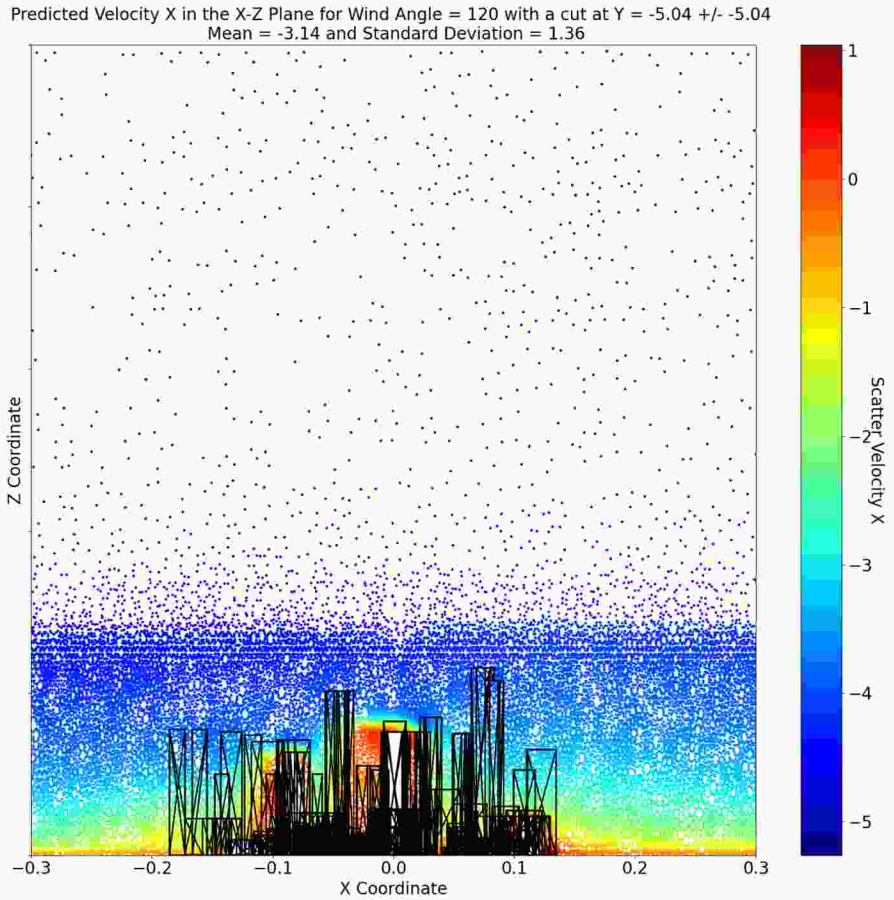
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



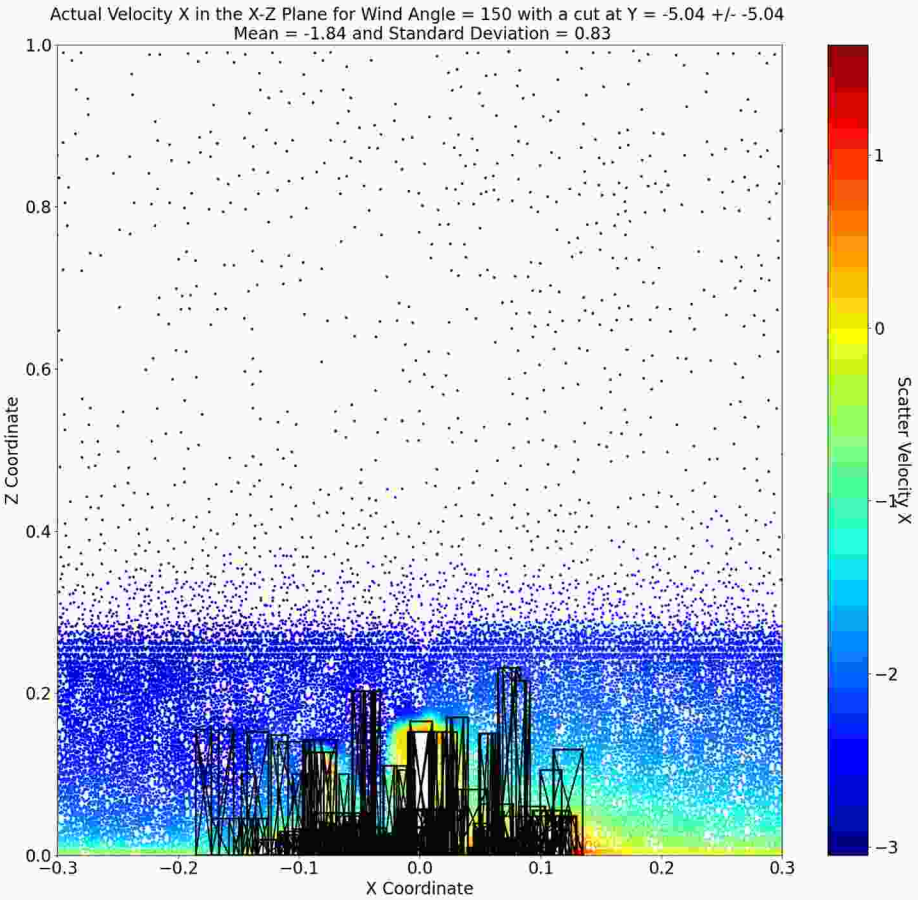


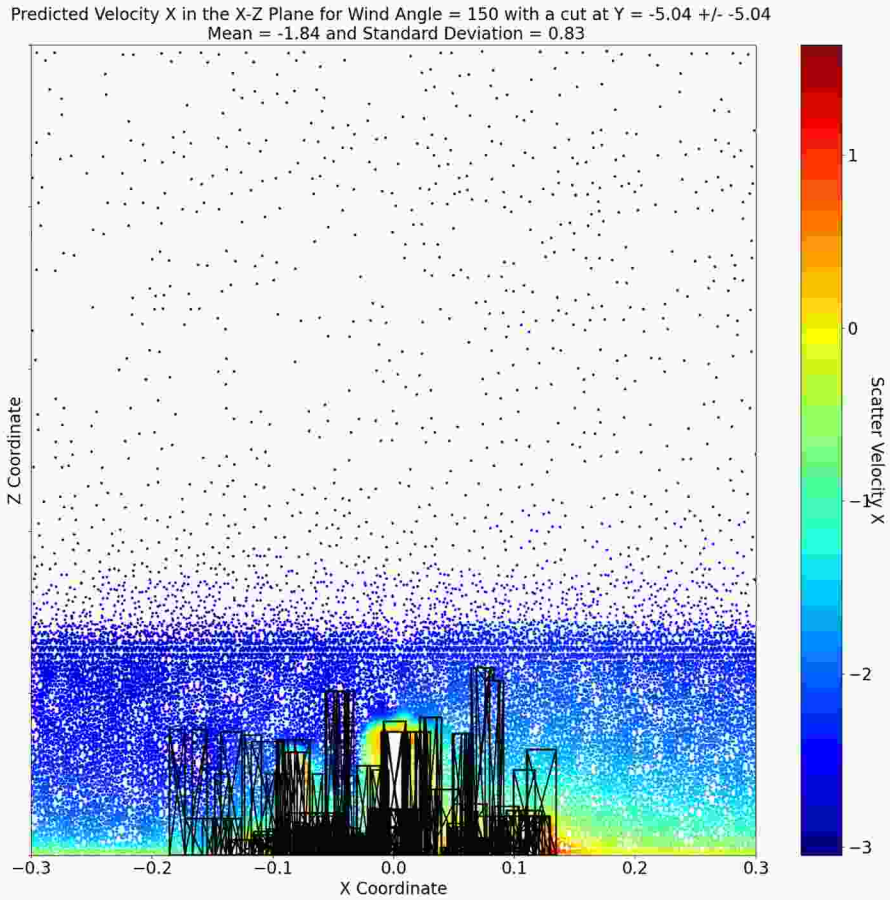
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



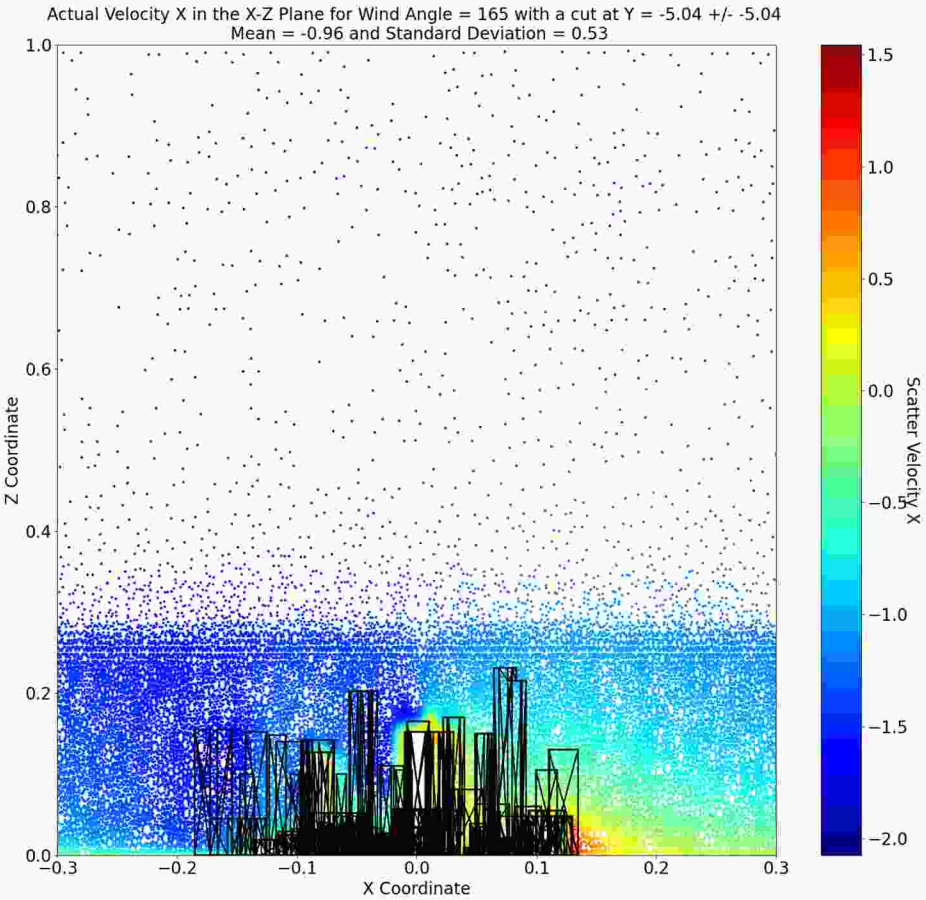


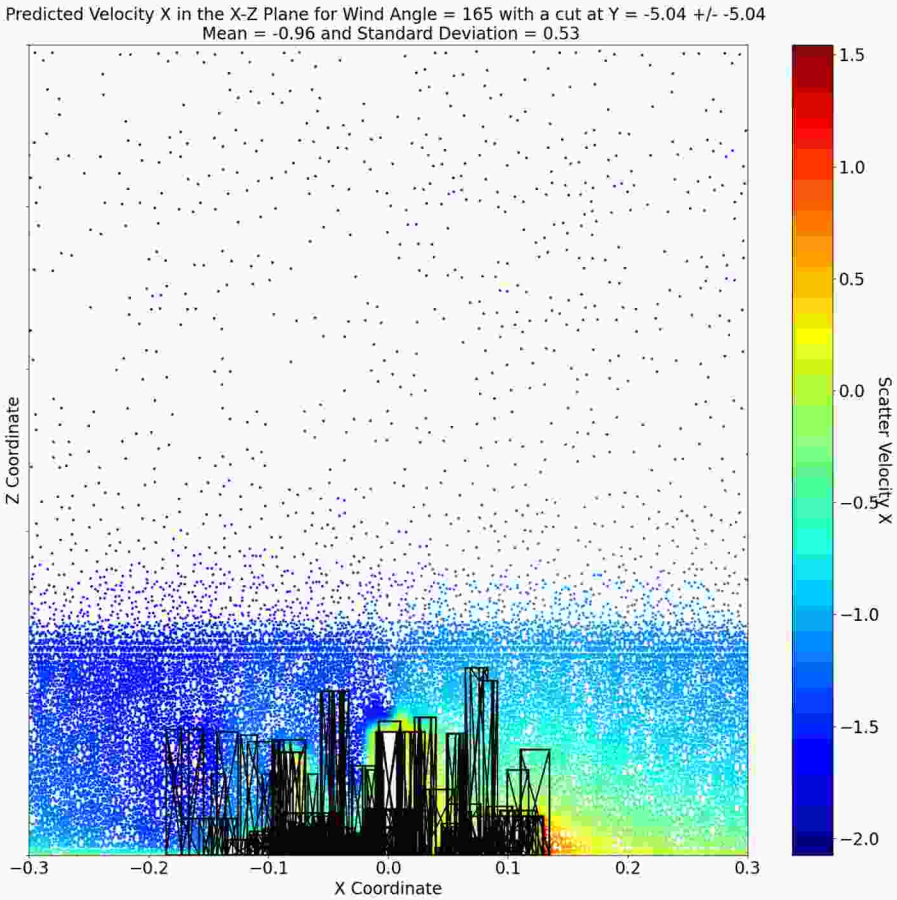
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



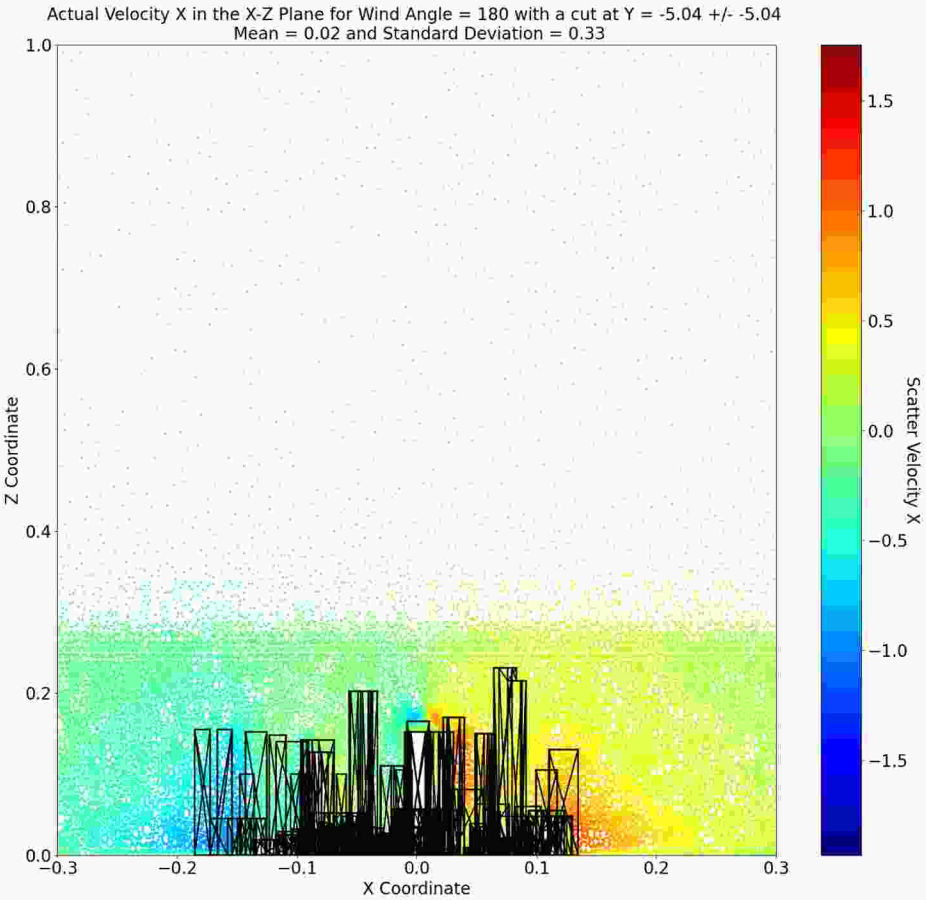


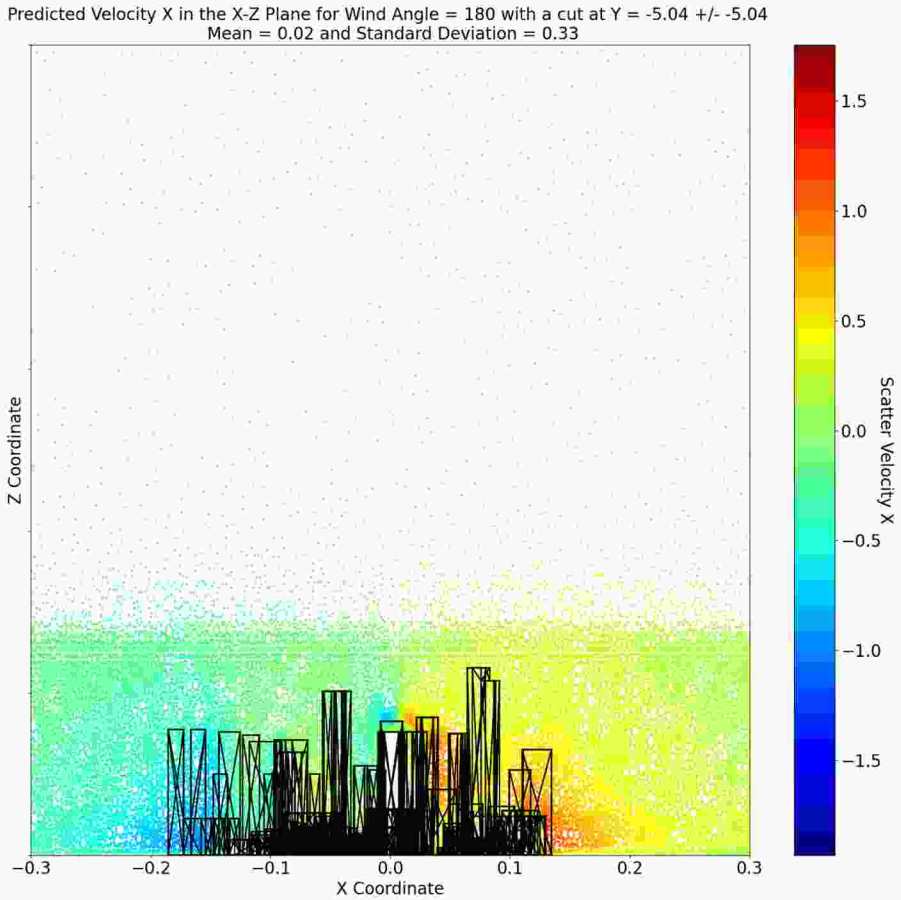
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

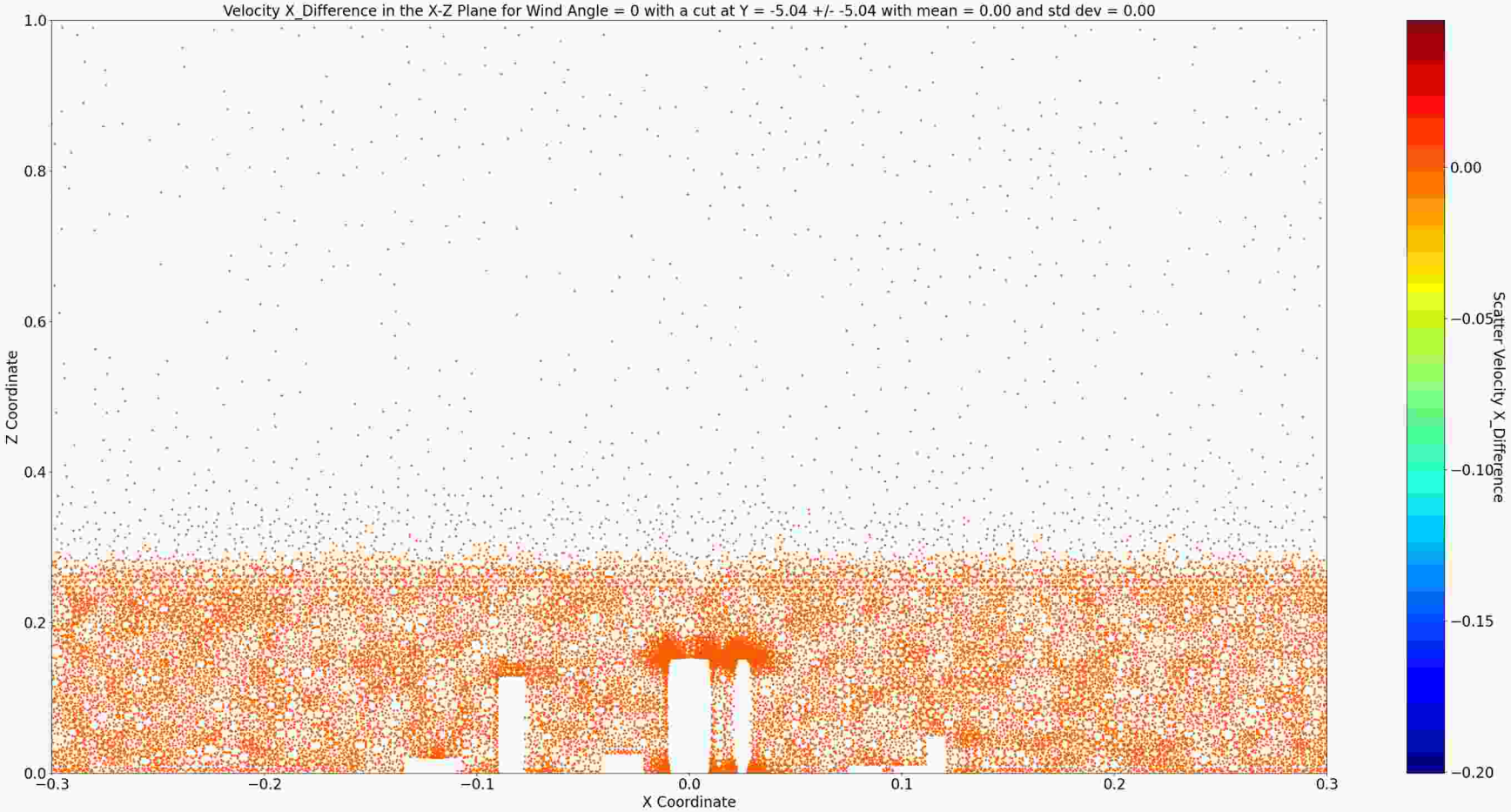


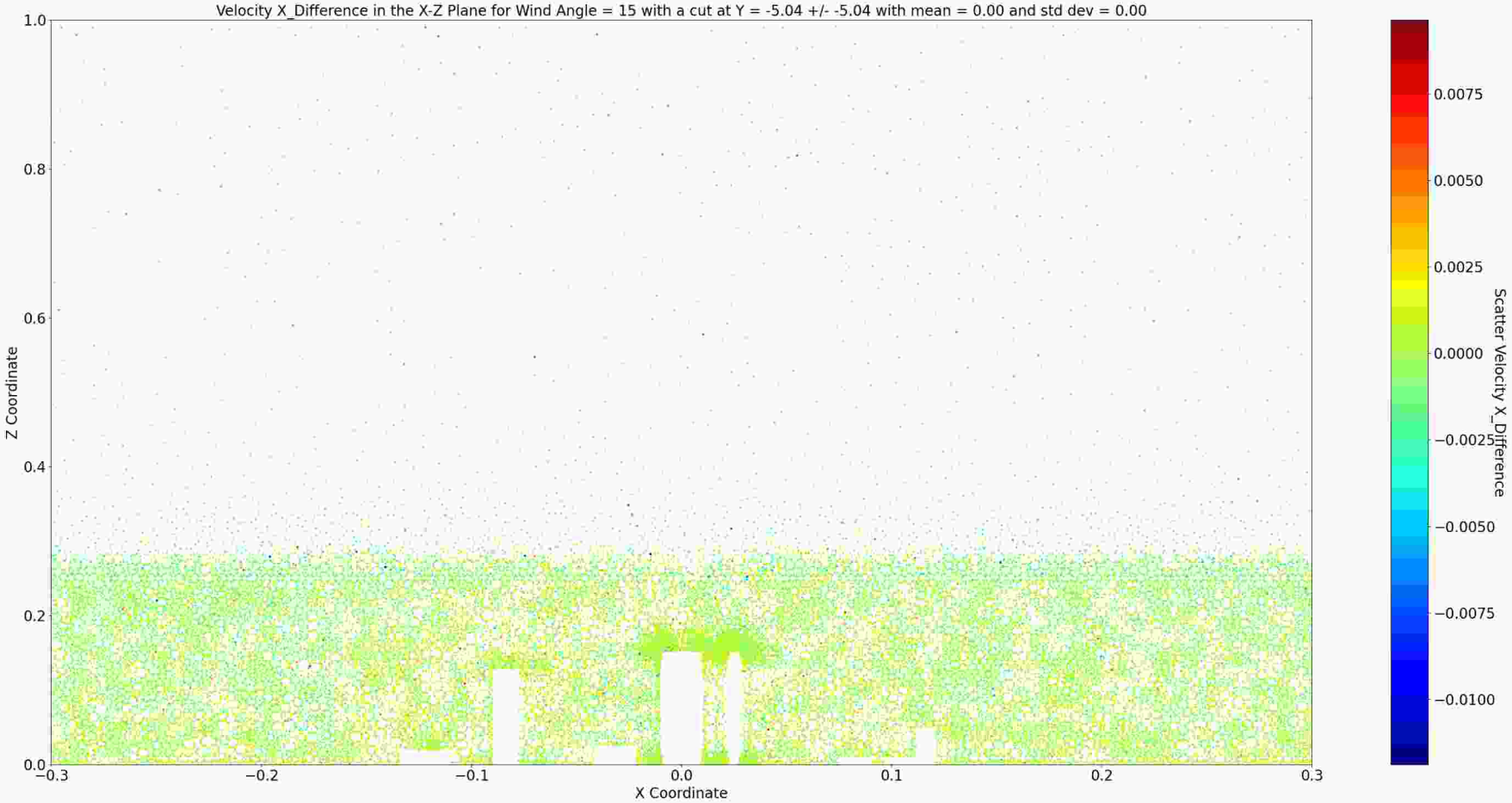


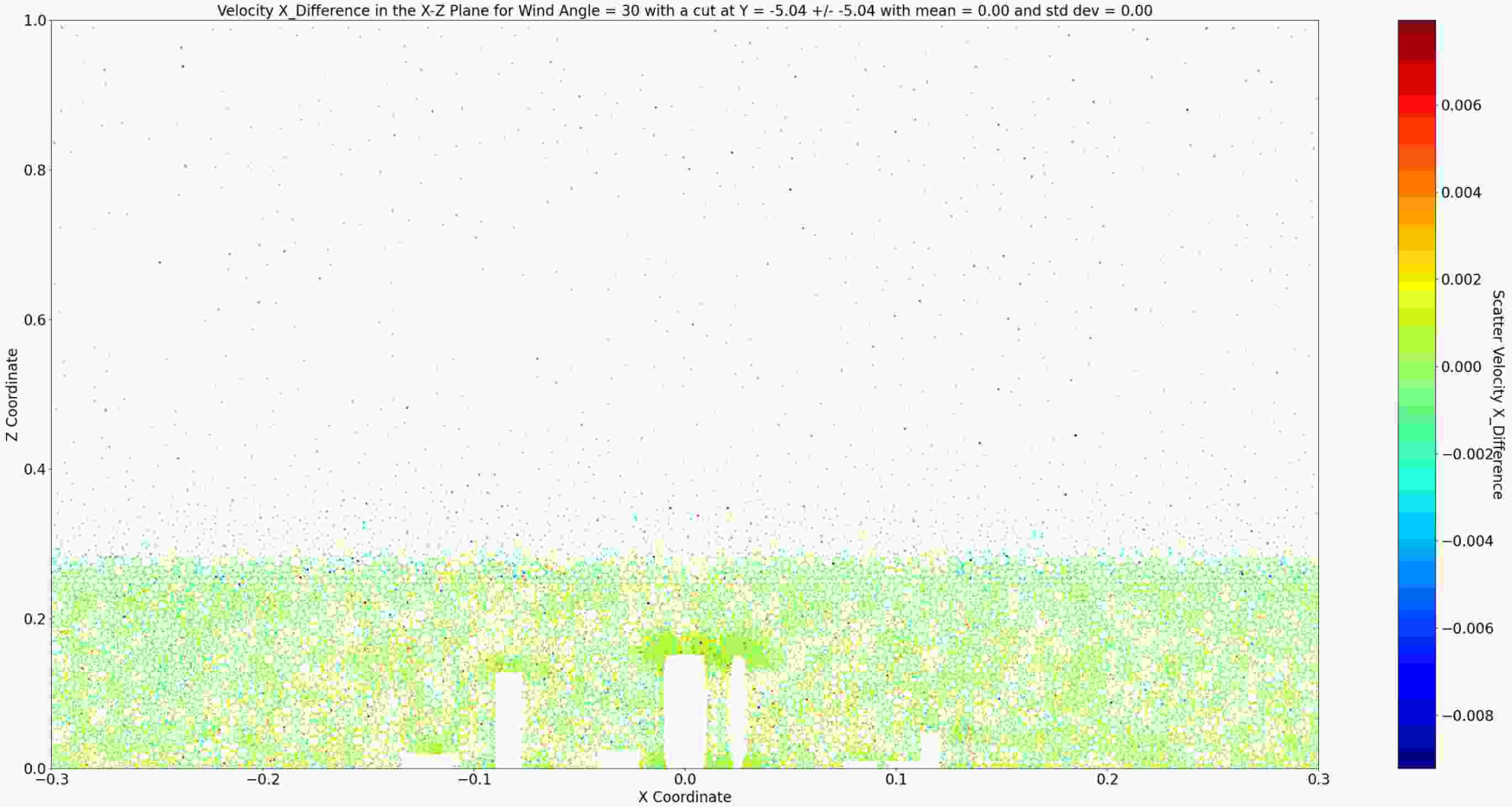
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

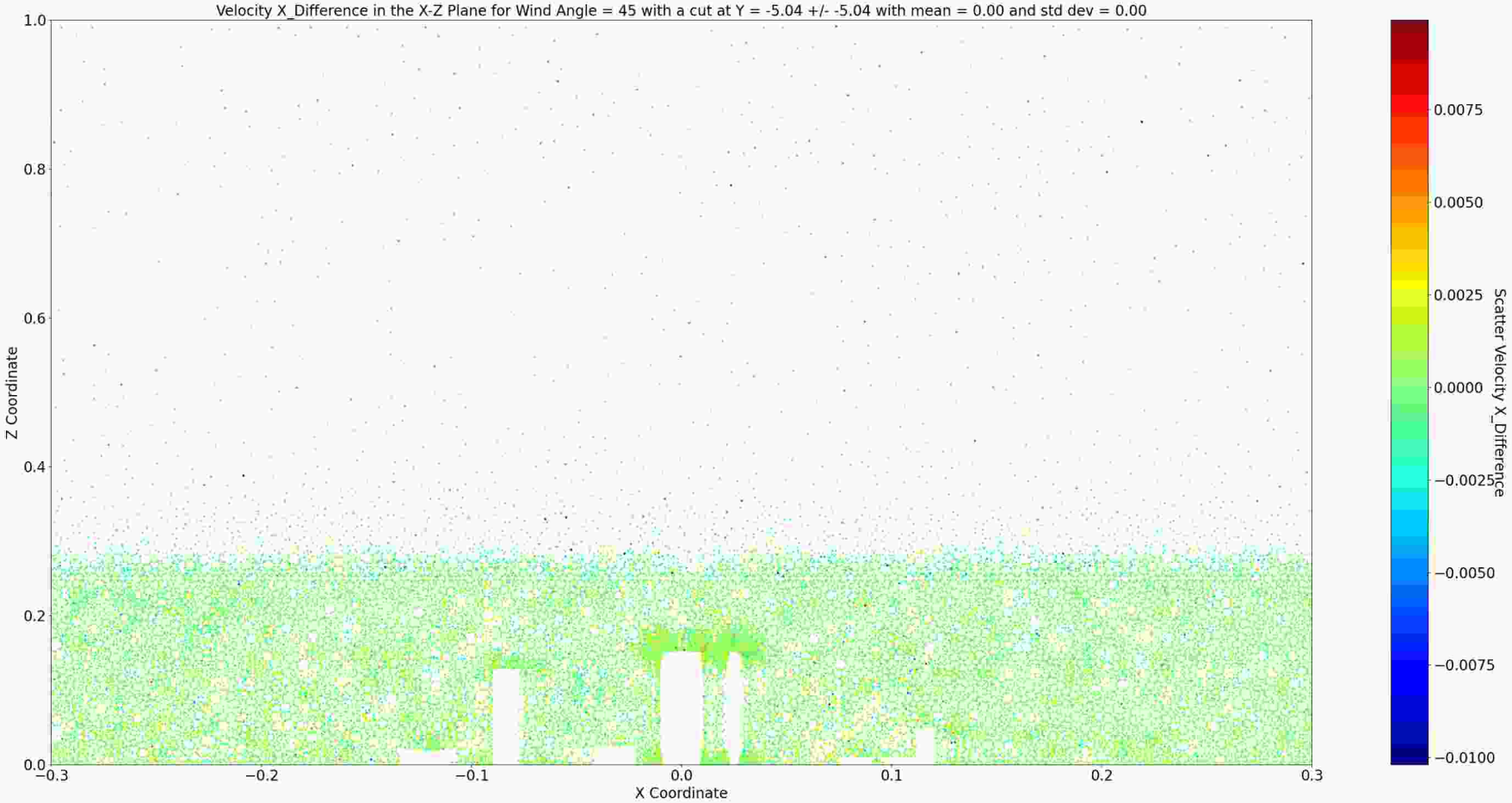


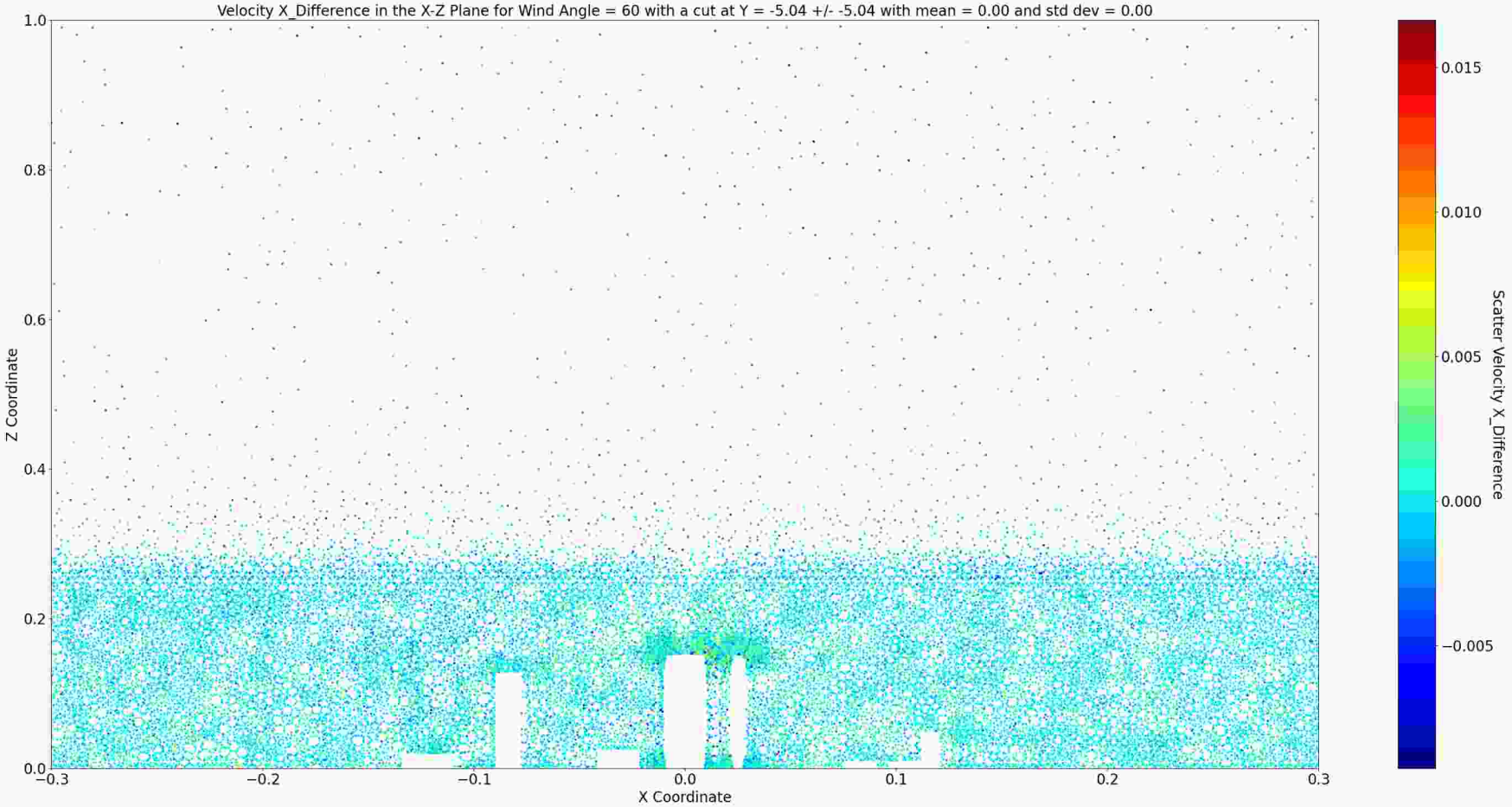


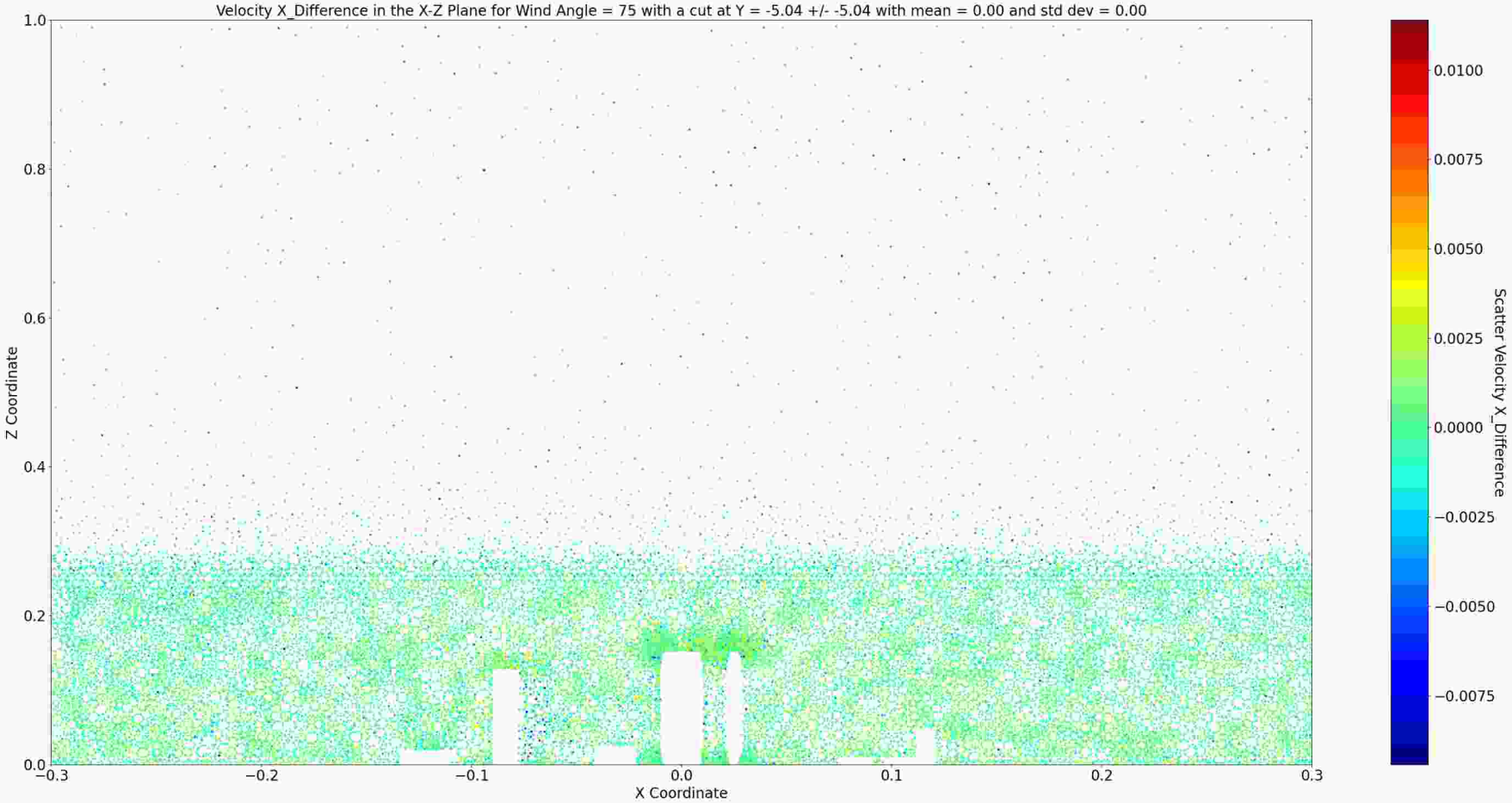

Velocity X_Difference in the X-Z Plane for Wind Angle = 0 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.00
−0.05
−0.10
−0.15
−0.20

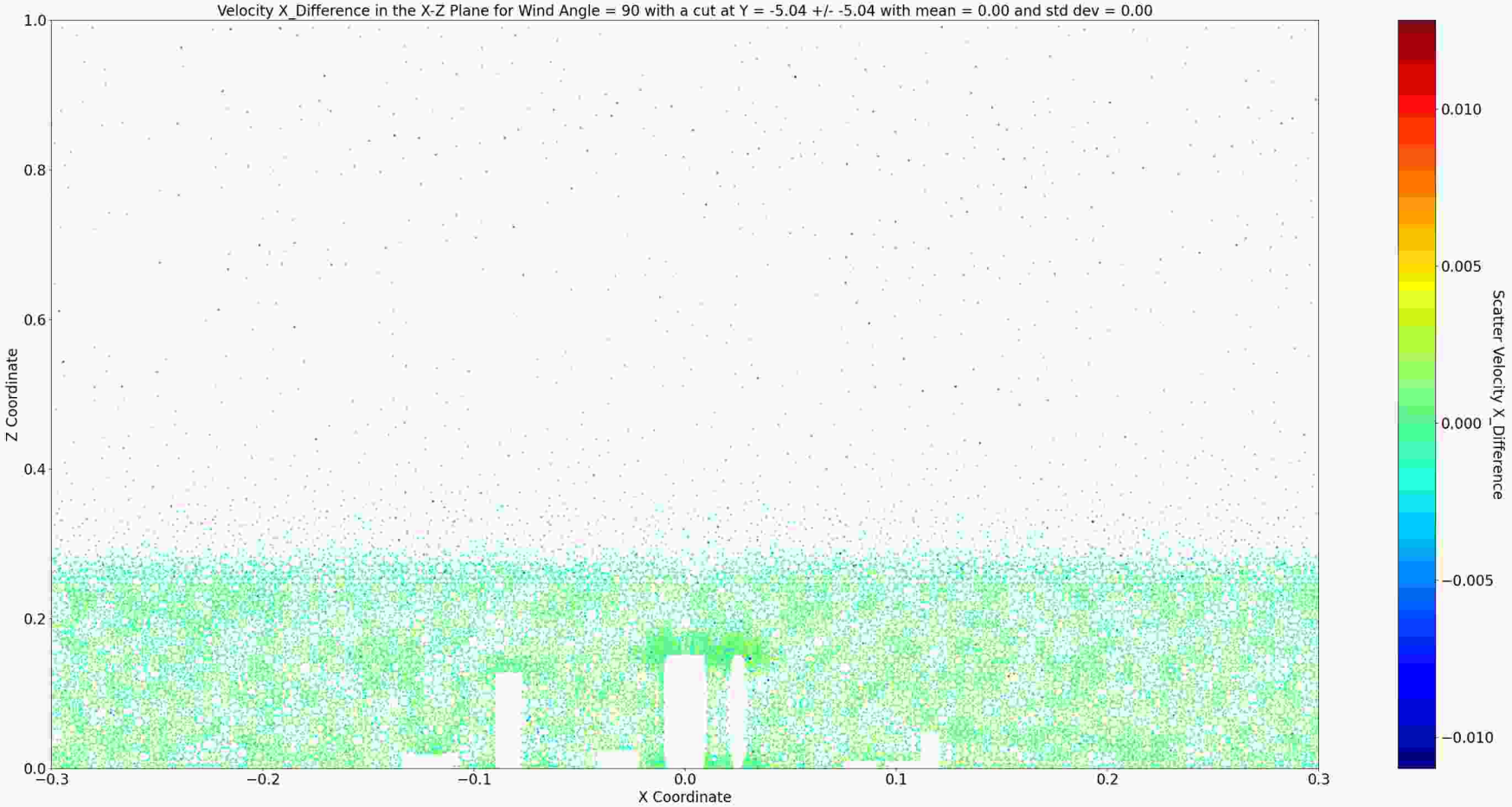

Velocity X_Difference in the X-Z Plane for Wind Angle = 15 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075
−0.0100

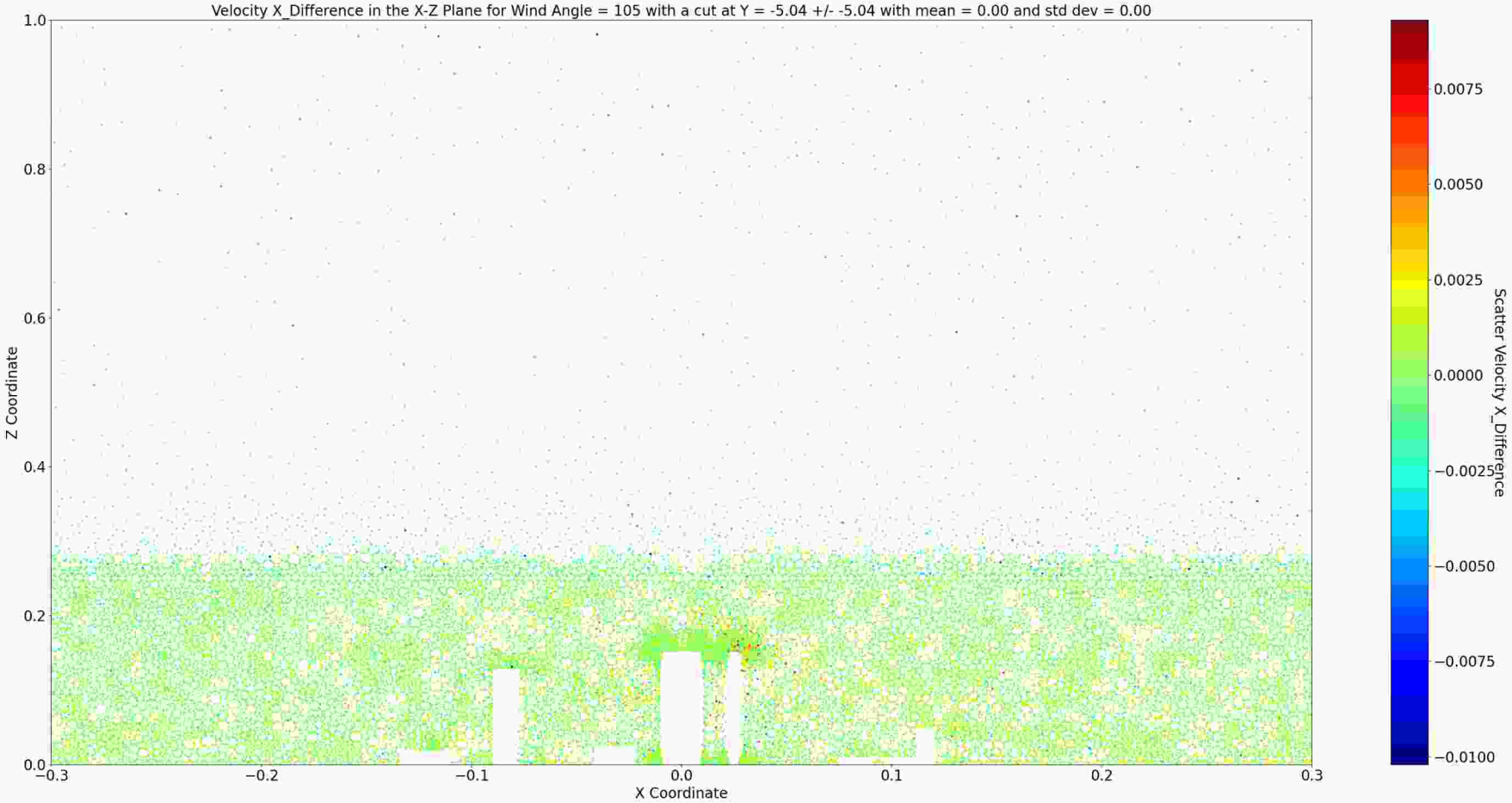

Velocity X_Difference in the X-Z Plane for Wind Angle = 30 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.006
0.004
0.002
0.000
−0.002
−0.004
−0.006
−0.008

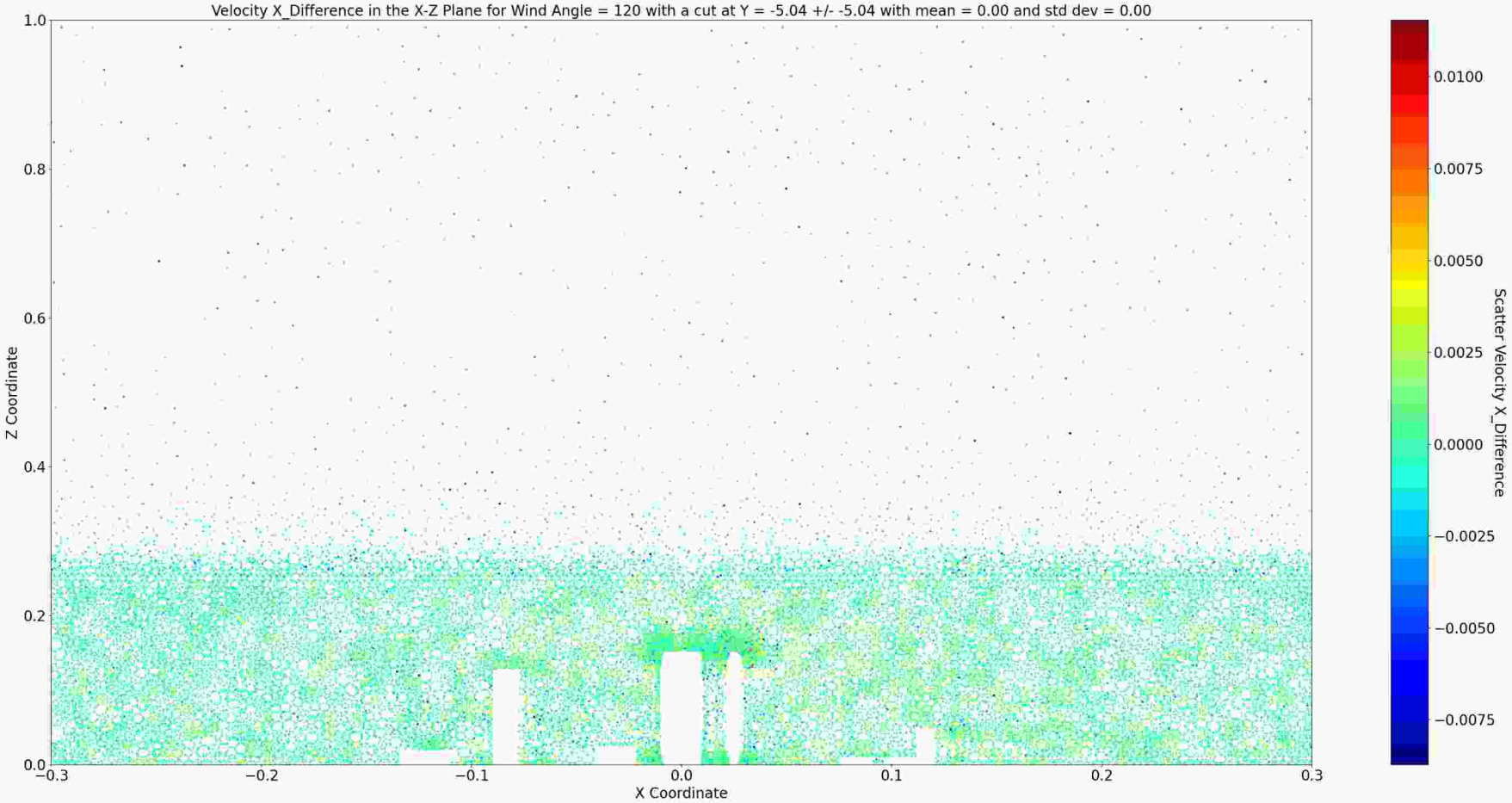

Velocity X_Difference in the X-Z Plane for Wind Angle = 45 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075
−0.0100

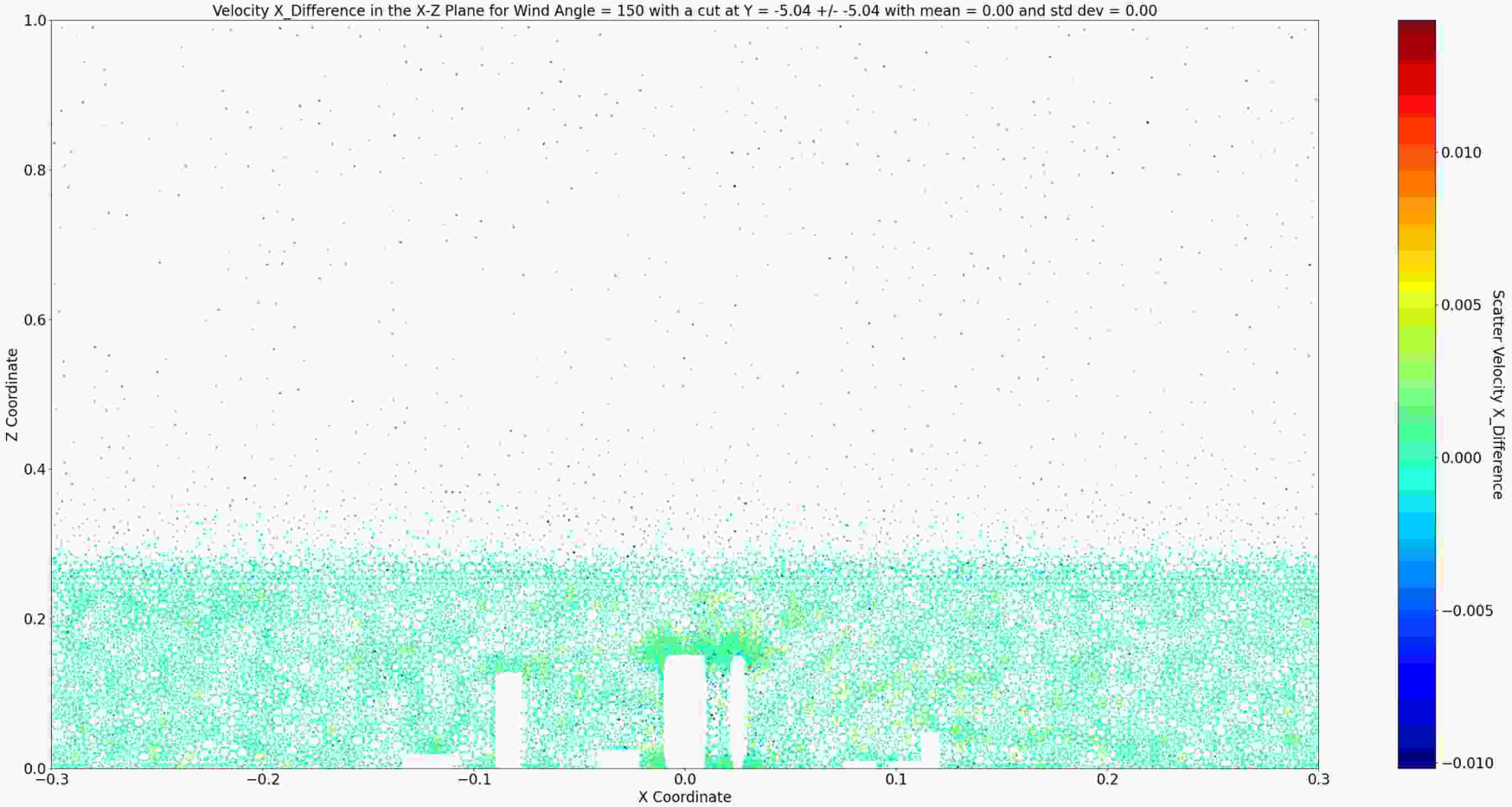

Velocity X_Difference in the X-Z Plane for Wind Angle = 60 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.015
0.010
0.005
0.000
−0.005

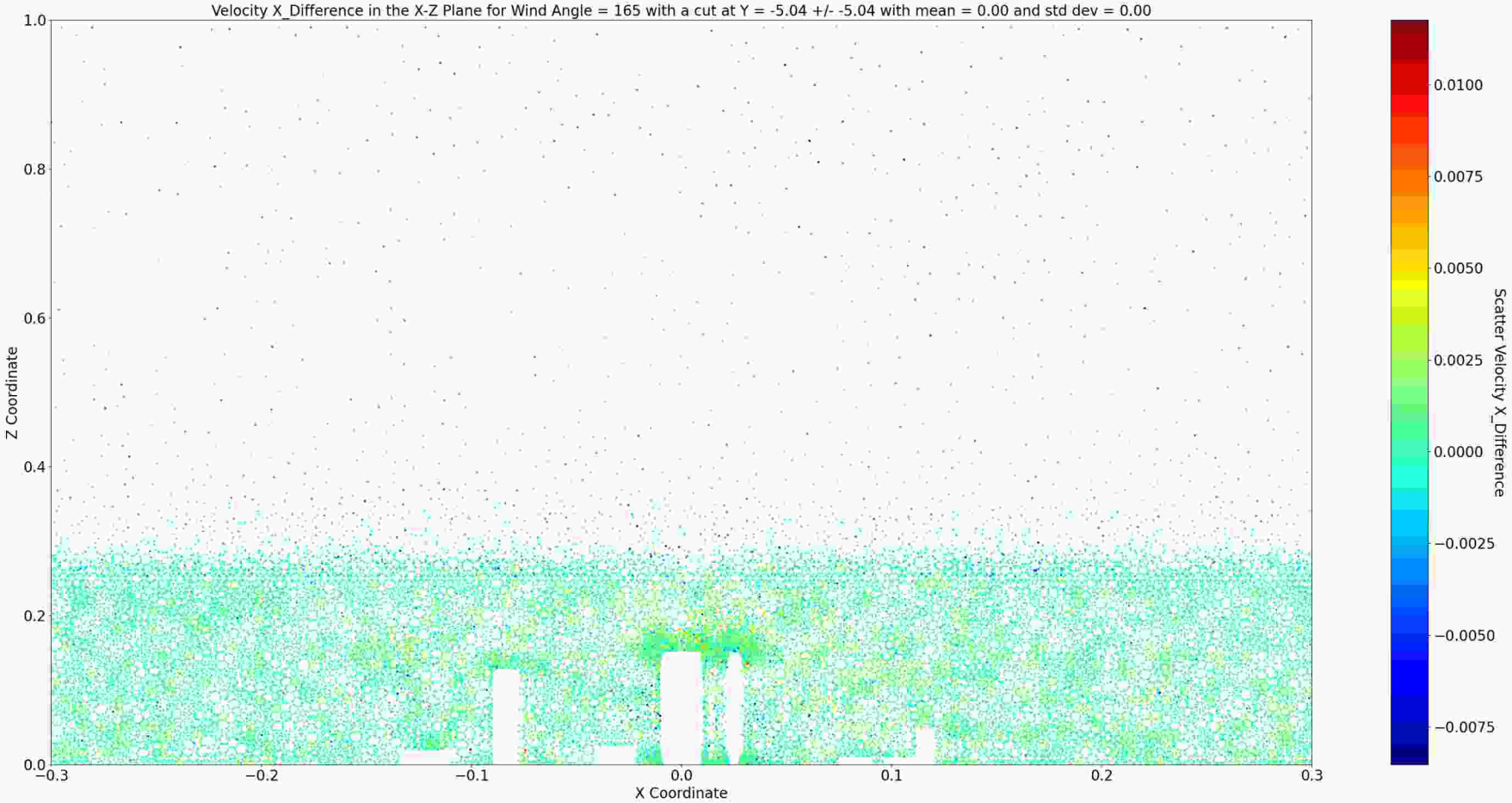

Velocity X_Difference in the X-Z Plane for Wind Angle = 75 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0100
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075

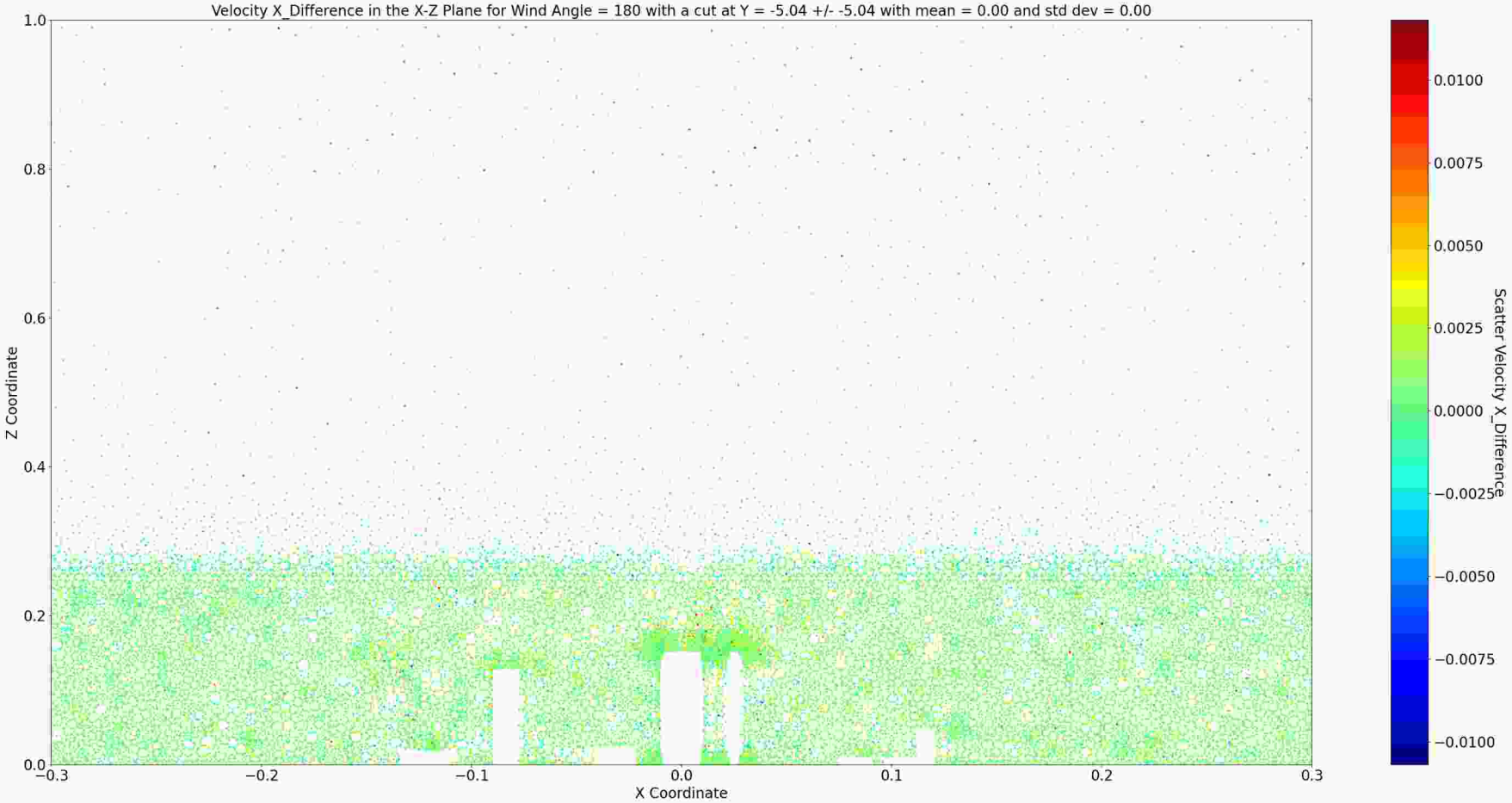

Velocity X_Difference in the X-Z Plane for Wind Angle = 90 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010

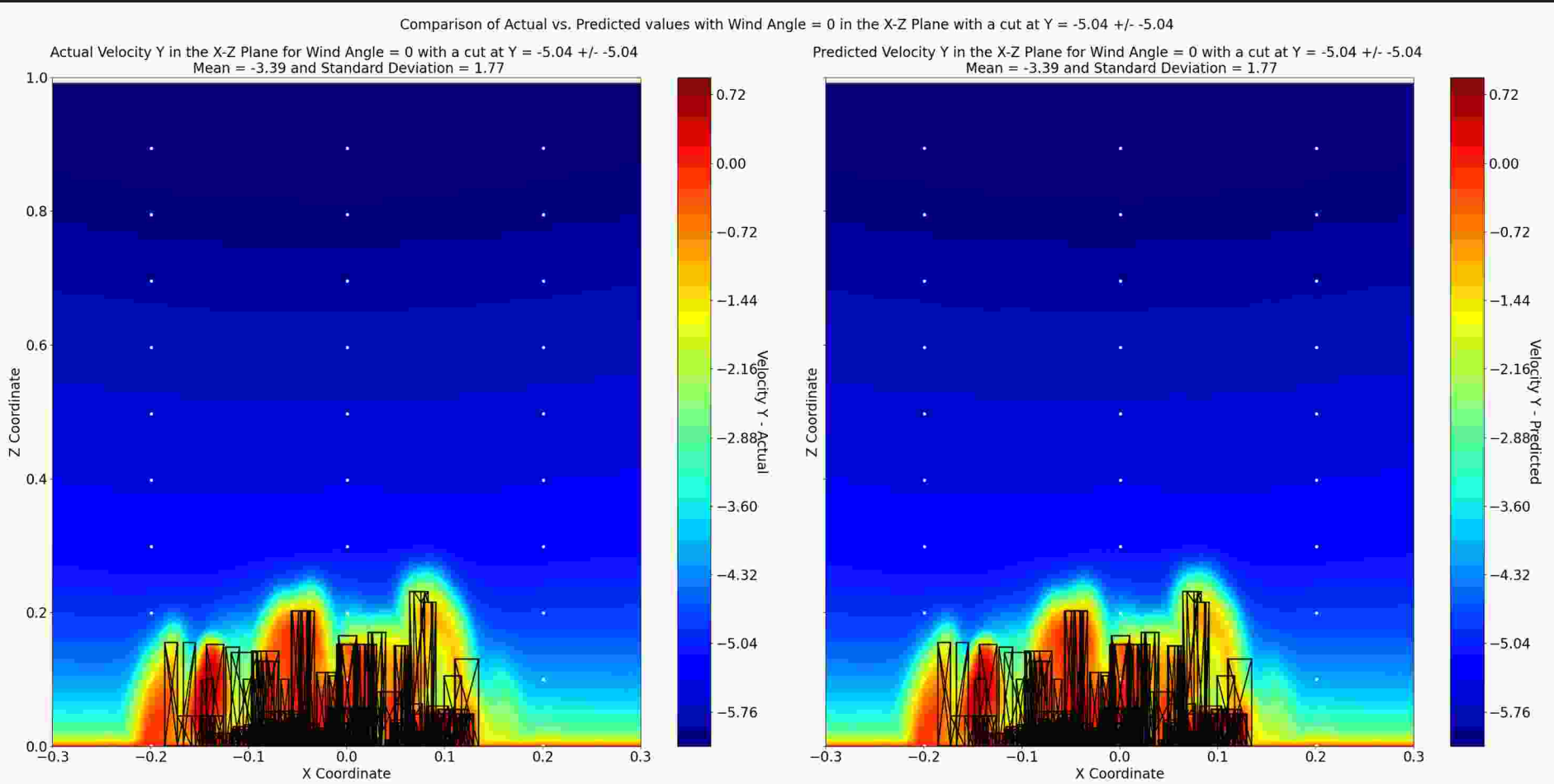

Velocity X_Difference in the X-Z Plane for Wind Angle = 105 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity X_Difference
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075
−0.0100


Velocity X_Difference in the X-Z Plane for Wind Angle = 120 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0100
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075

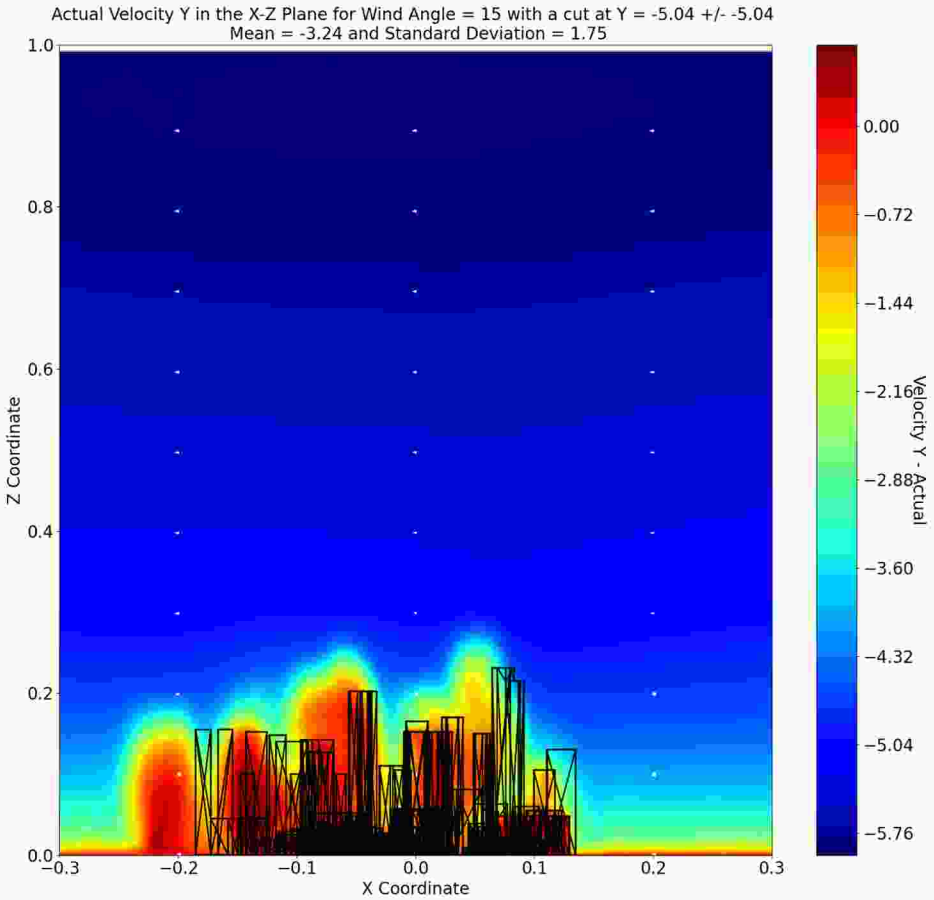

Velocity X_Difference in the X-Z Plane for Wind Angle = 150 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010

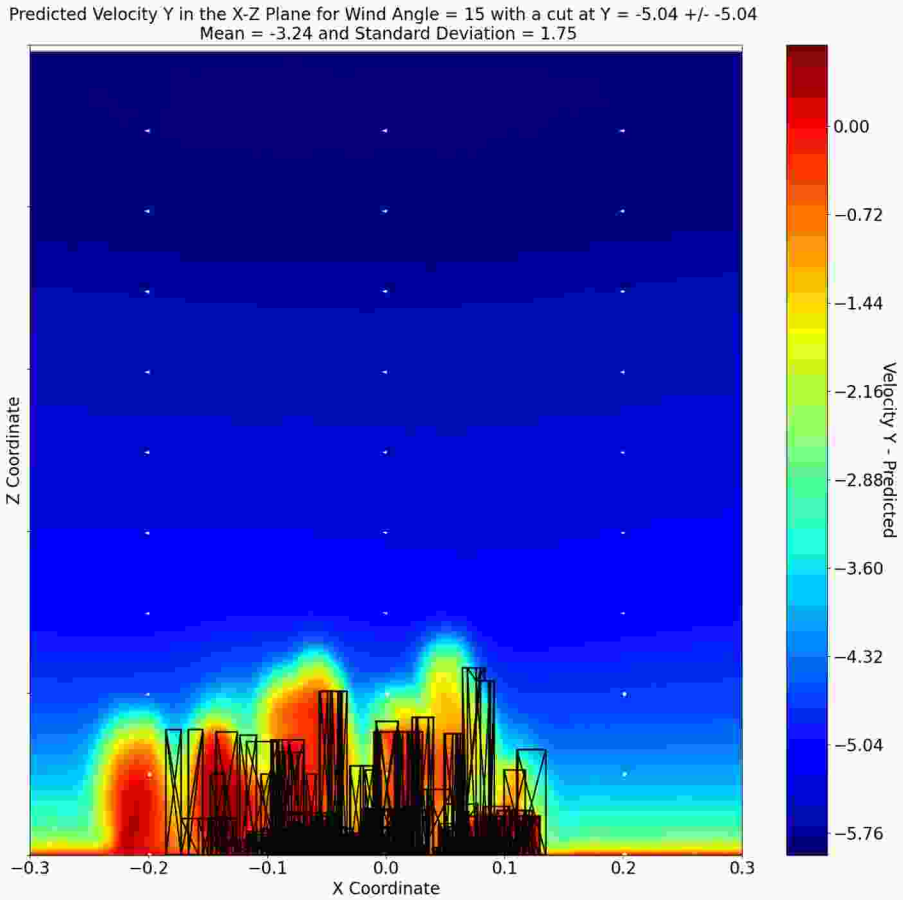

Velocity X_Difference in the X-Z Plane for Wind Angle = 165 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0100
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075


Velocity X_Difference in the X-Z Plane for Wind Angle = 180 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0100
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075
−0.0100

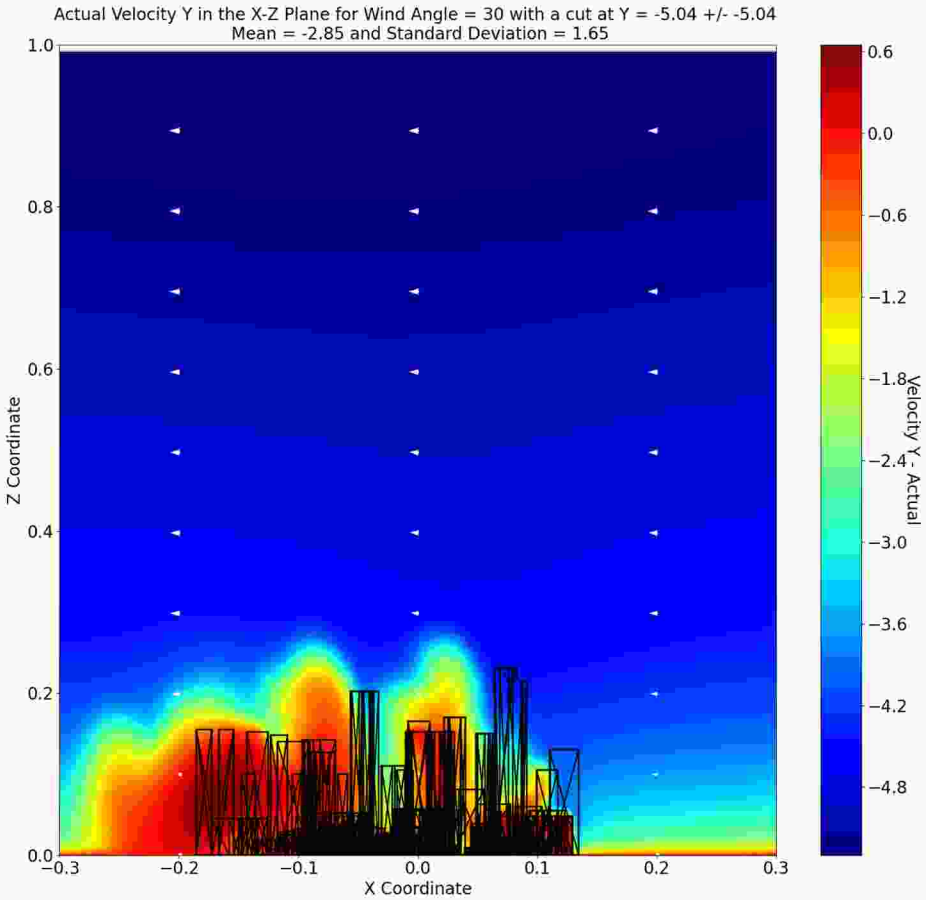

Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04
Actual Velocity Y in the X-Z Plane for Wind Angle = 0 with a cut at Y = -5.04 +/- -5.04
Mean = -3.39 and Standard Deviation = 1.77
Predicted Velocity Y in the X-Z Plane for Wind Angle = 0 with a cut at Y = -5.04 +/- -5.04
Mean = -3.39 and Standard Deviation = 1.77
Z Coordinate
X Coordinate
Velocity Y - Actual
Velocity Y - Predicted
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.72
0.00
−0.72
−1.44
−2.16
−2.88
−3.60
−4.32
−5.04
−5.76

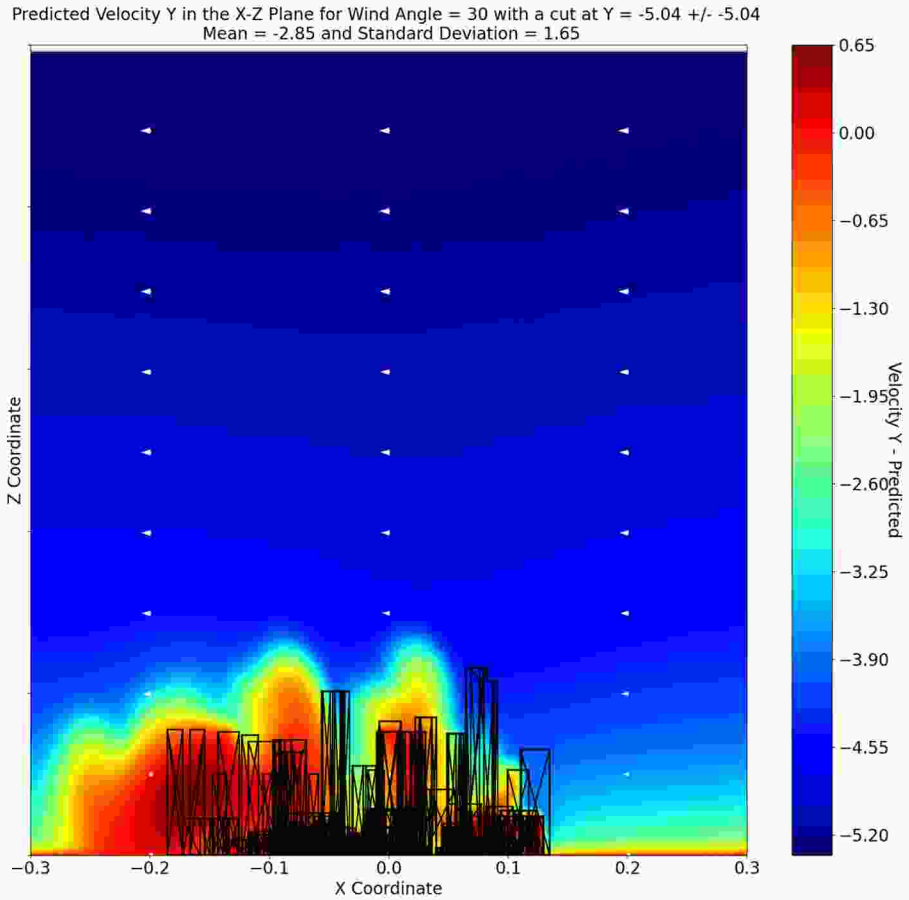
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



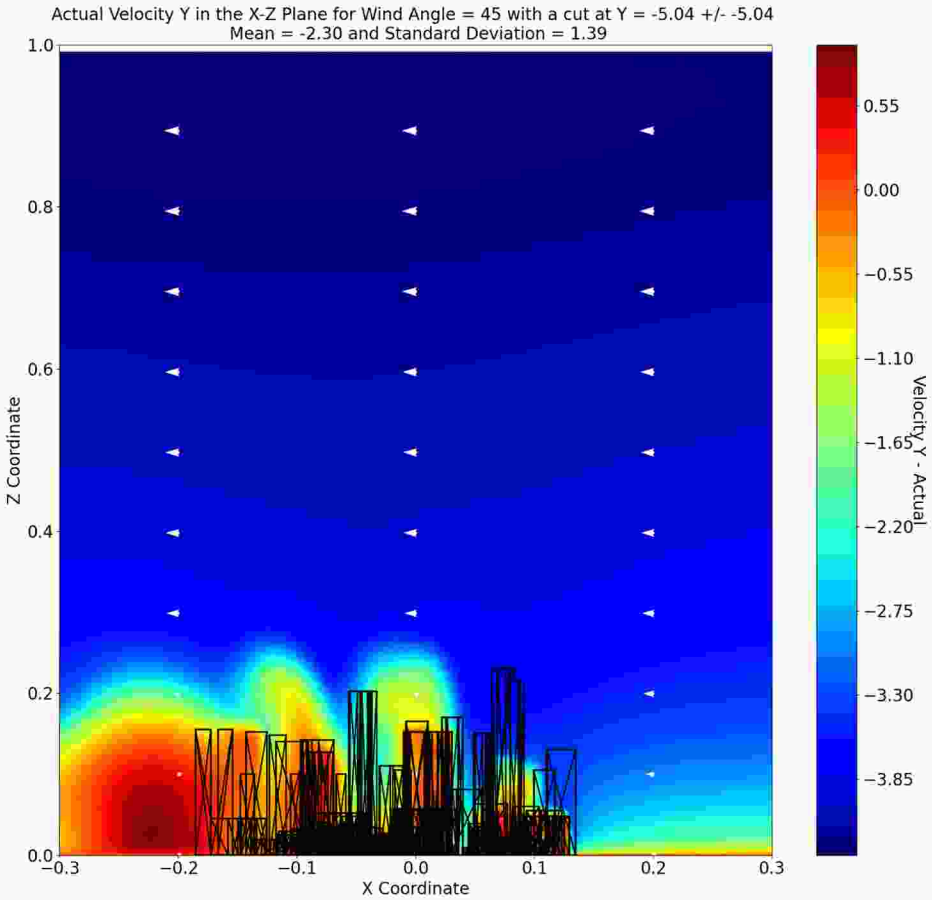


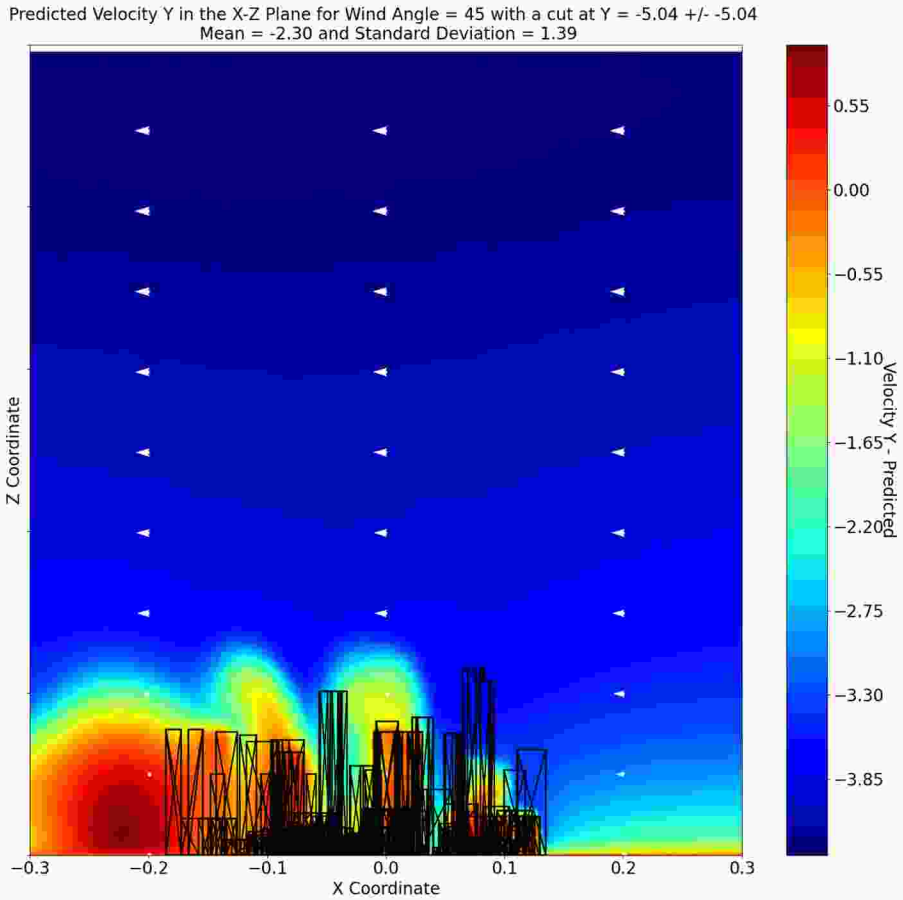
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



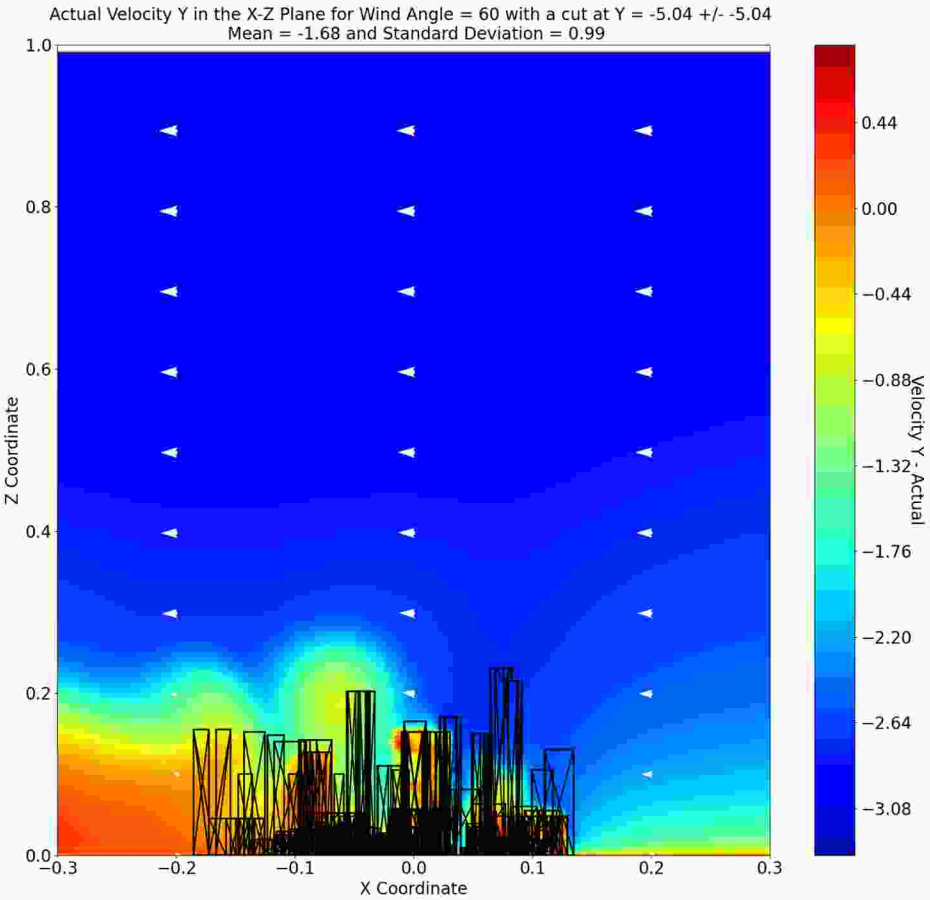


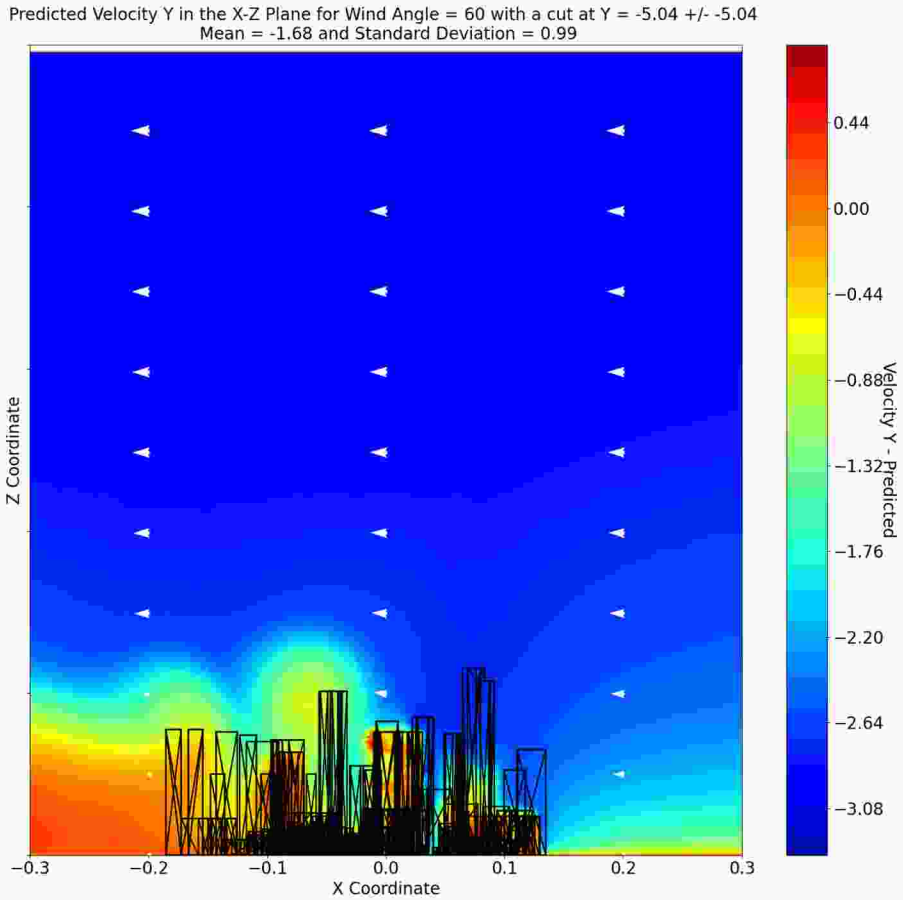
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



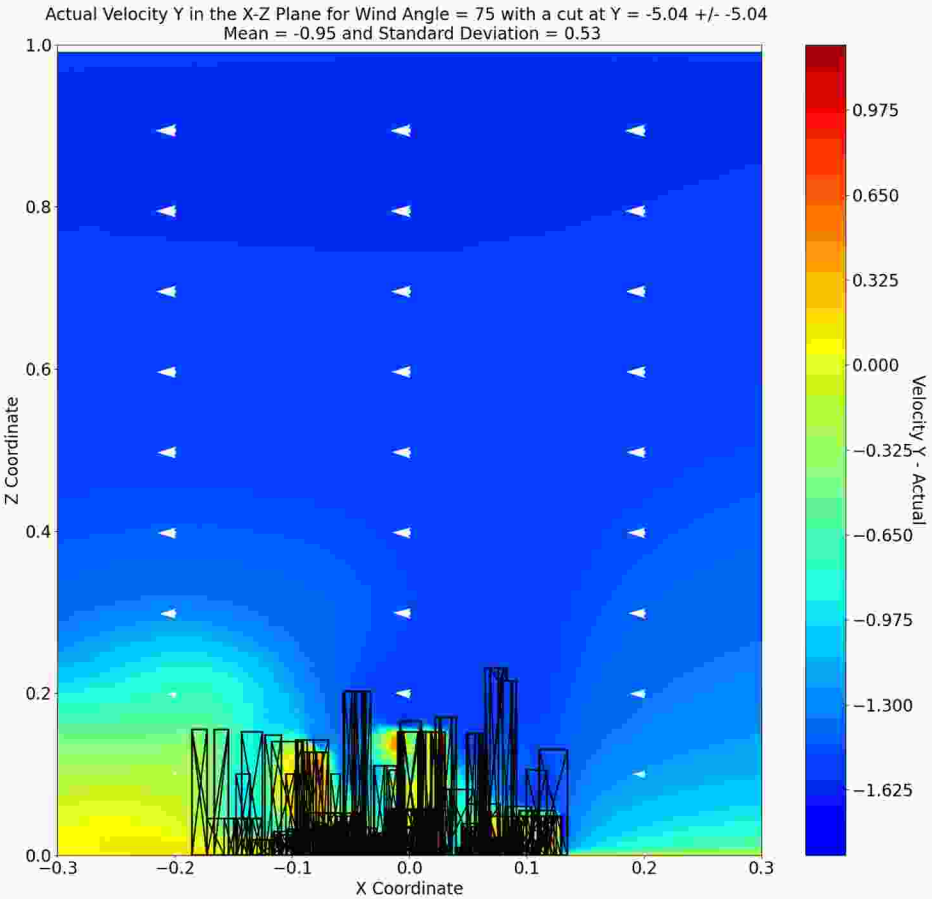


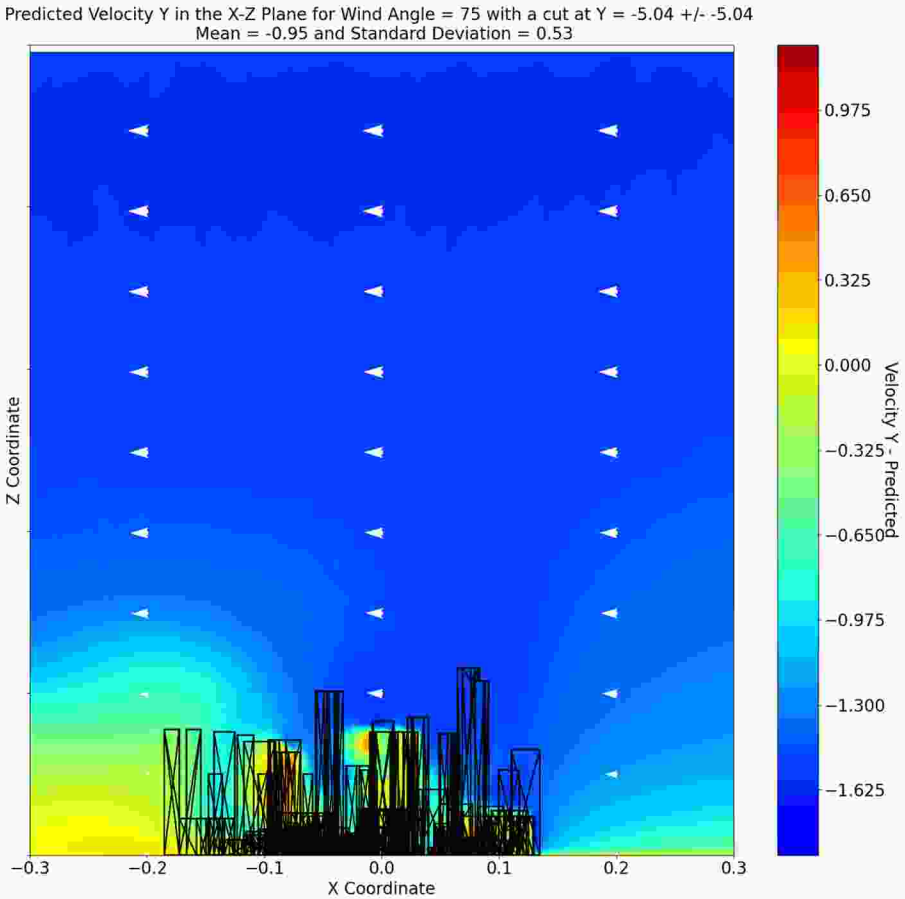
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



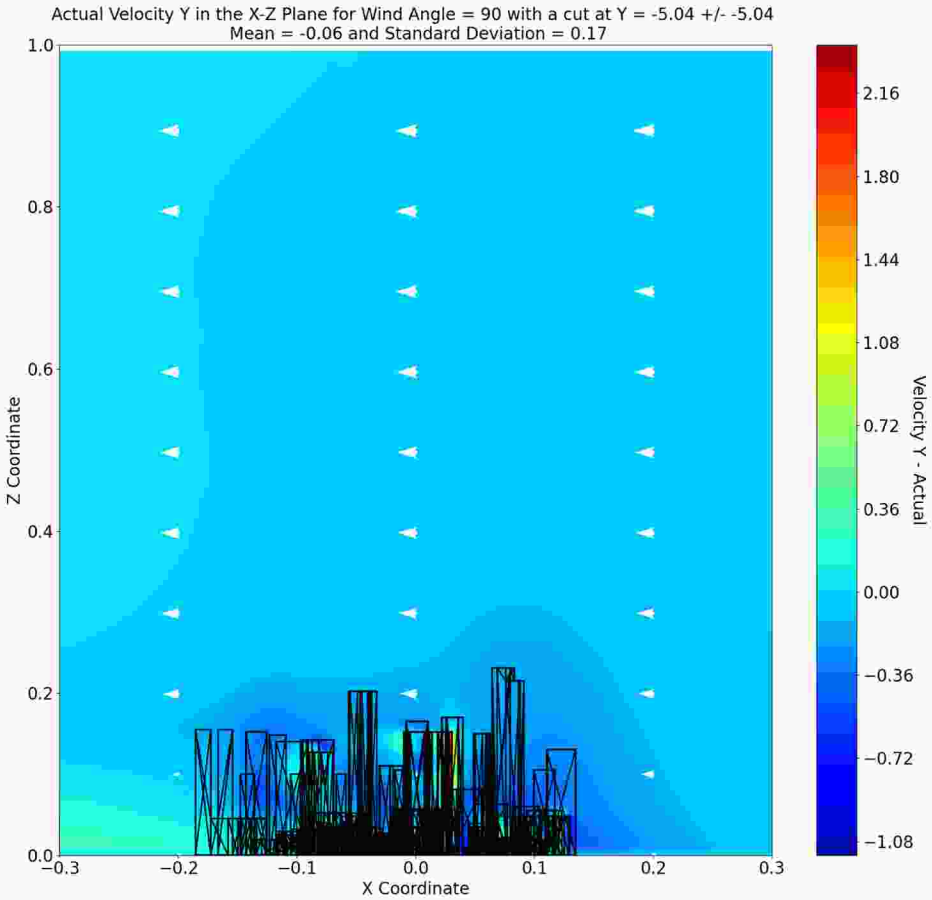


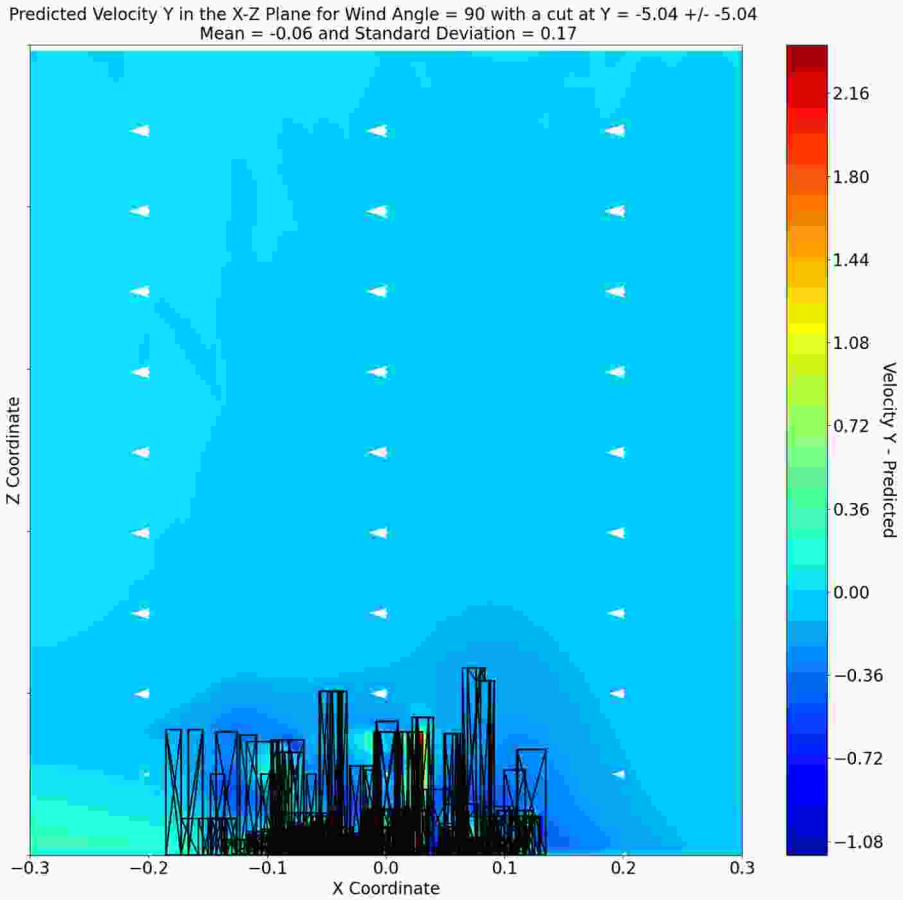
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



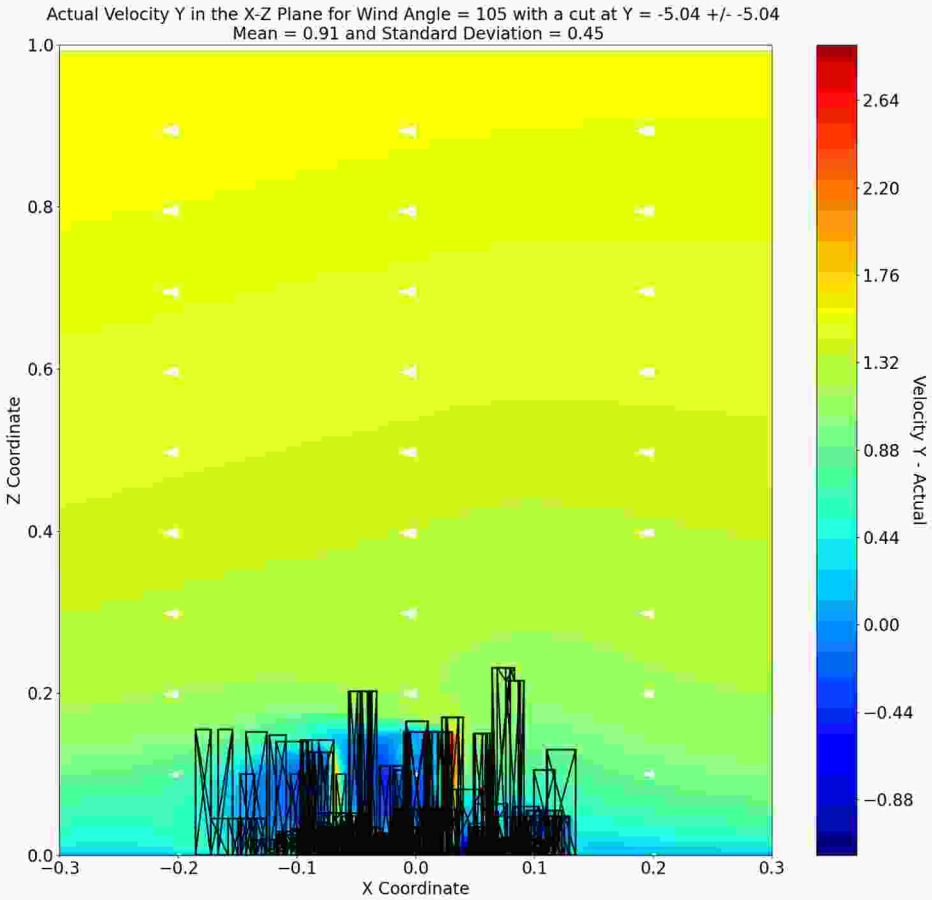


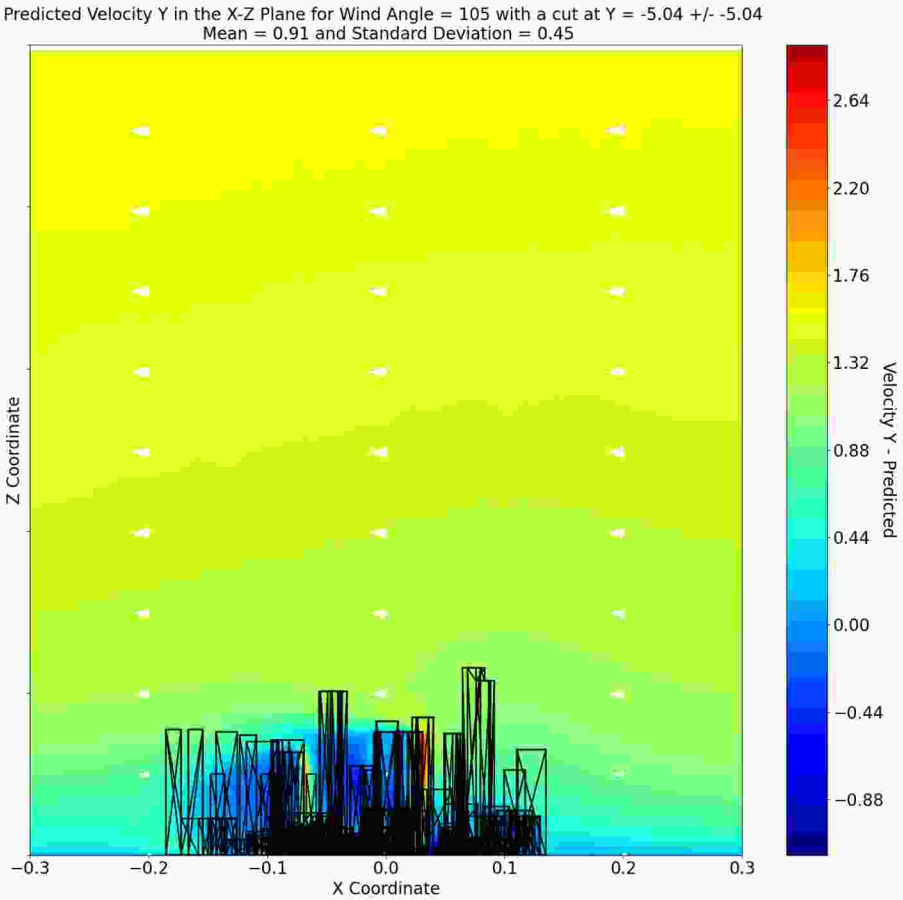
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



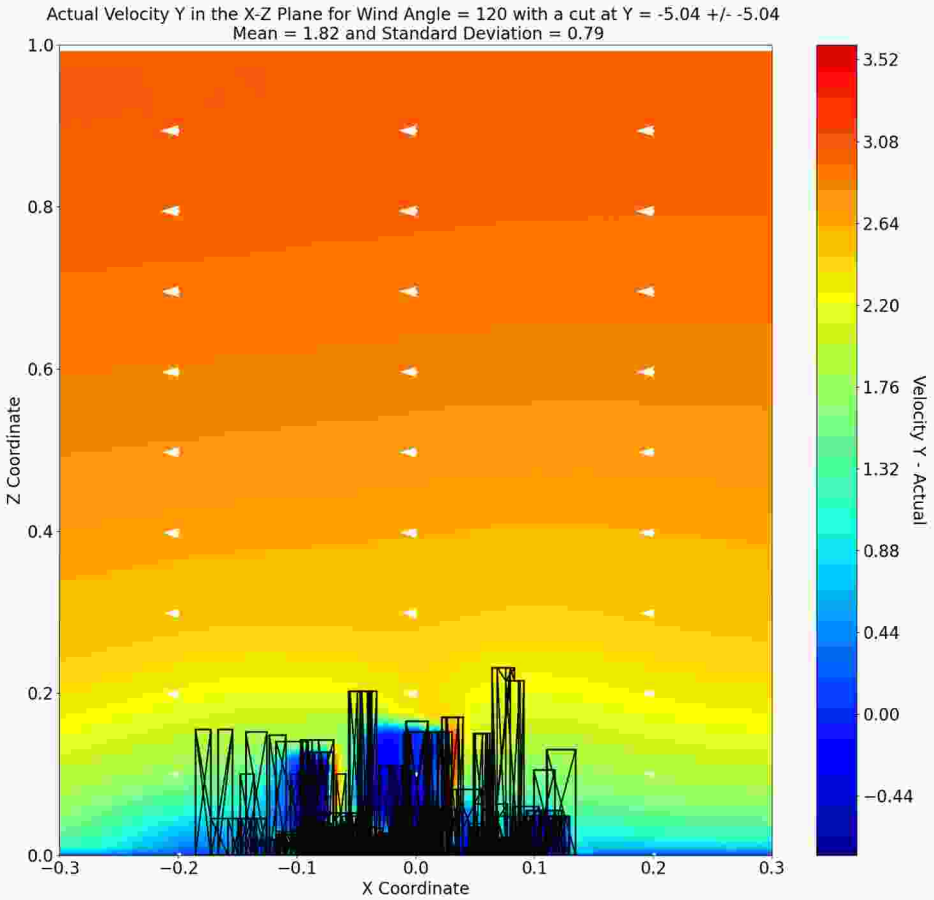


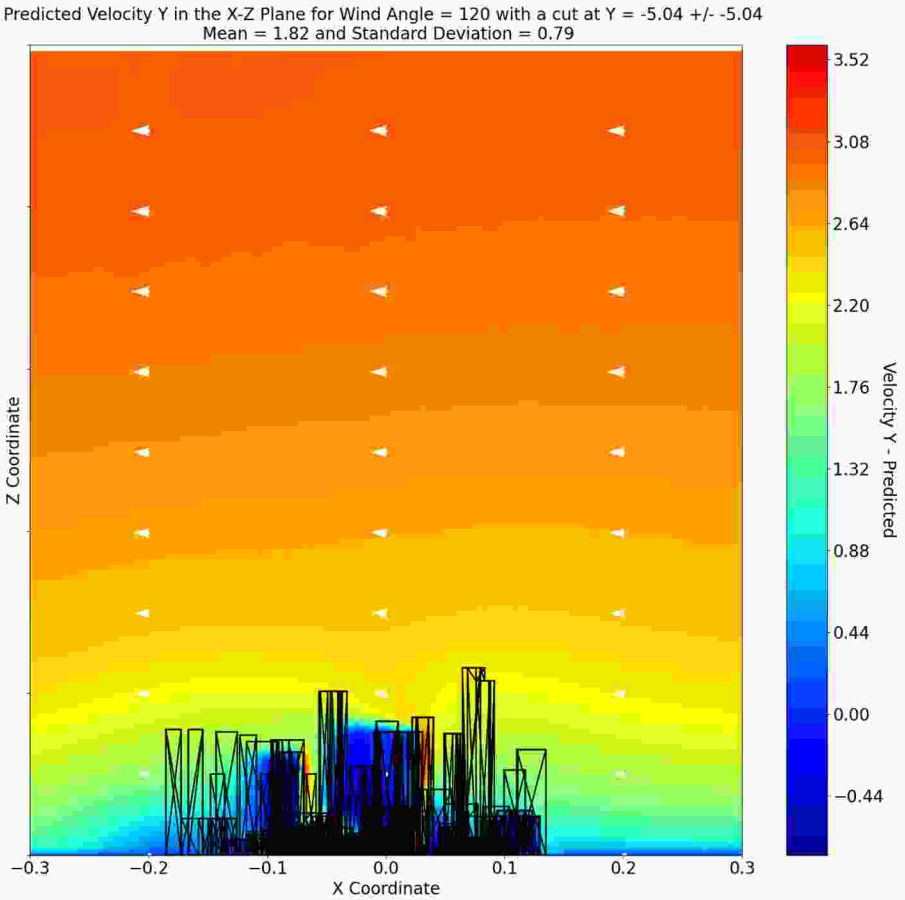
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



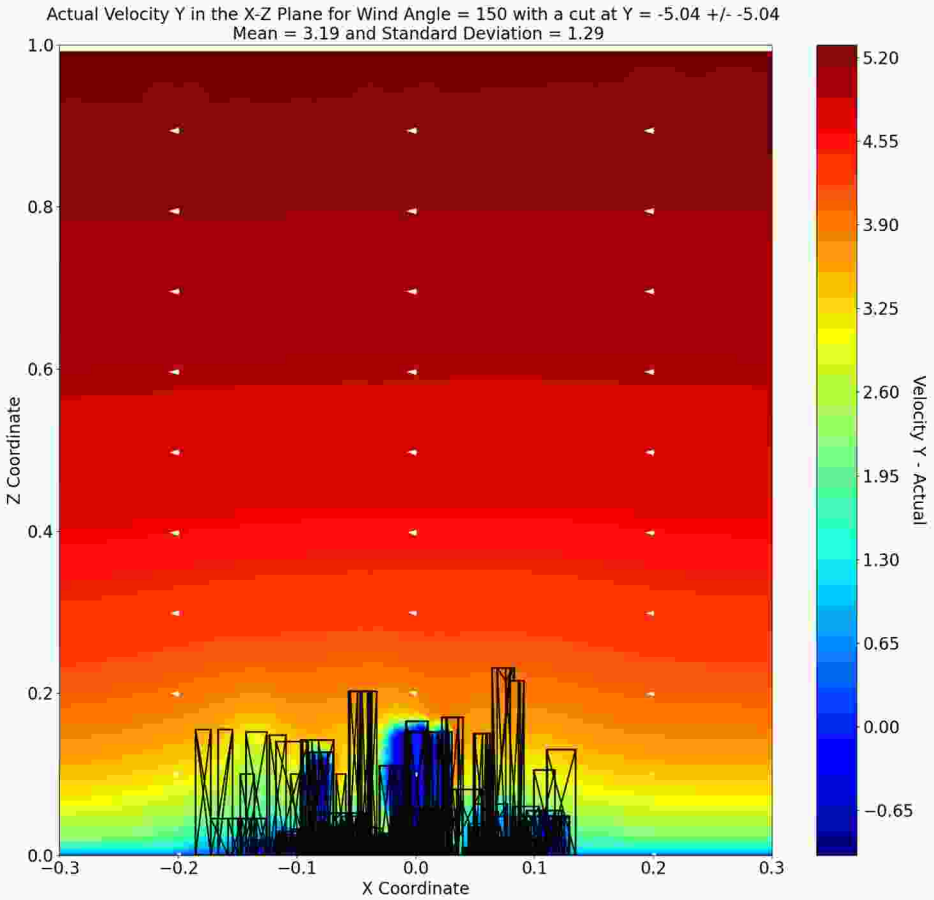


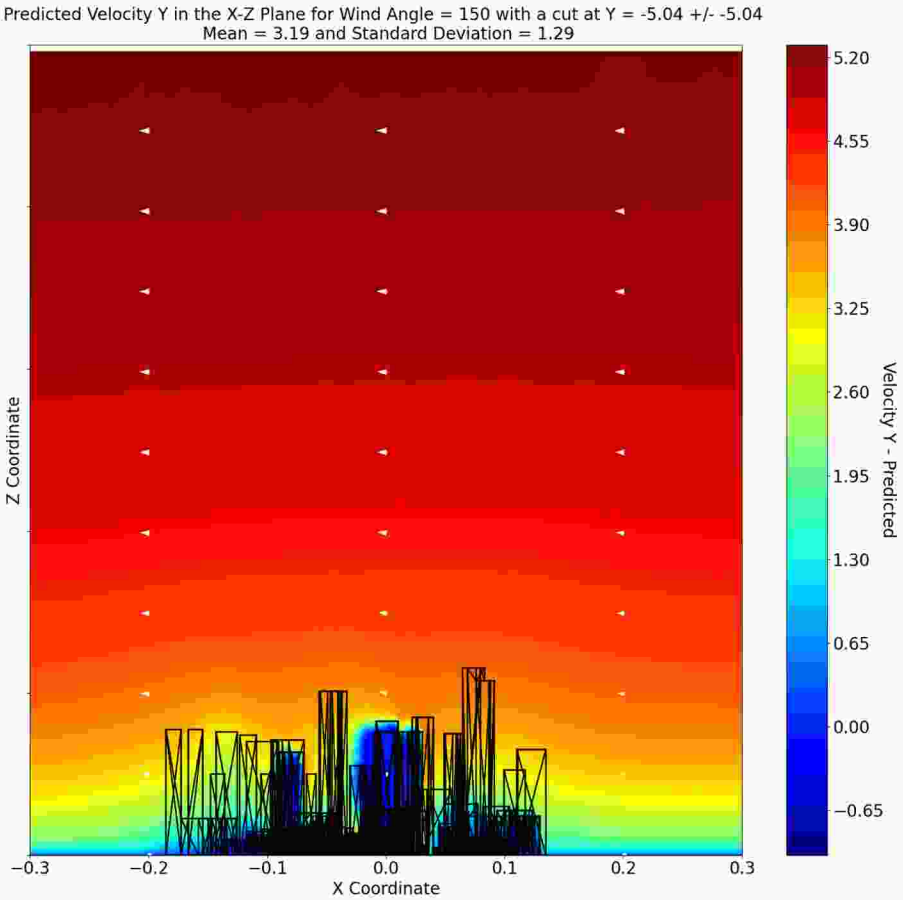
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



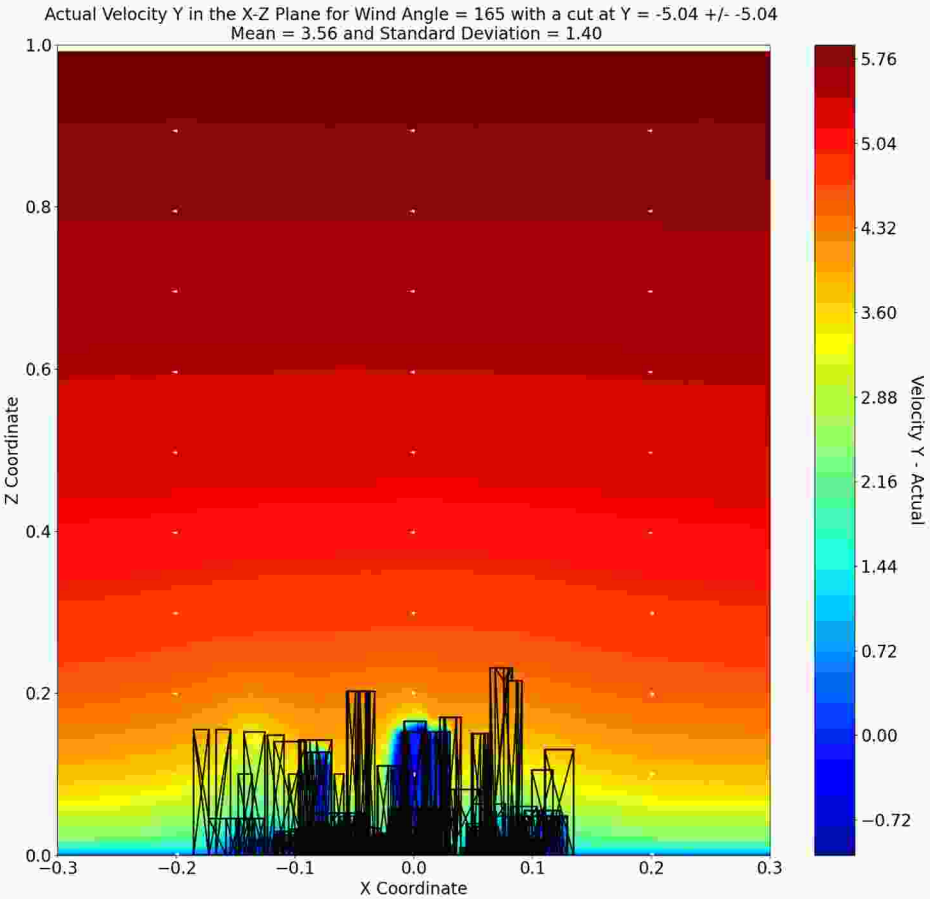


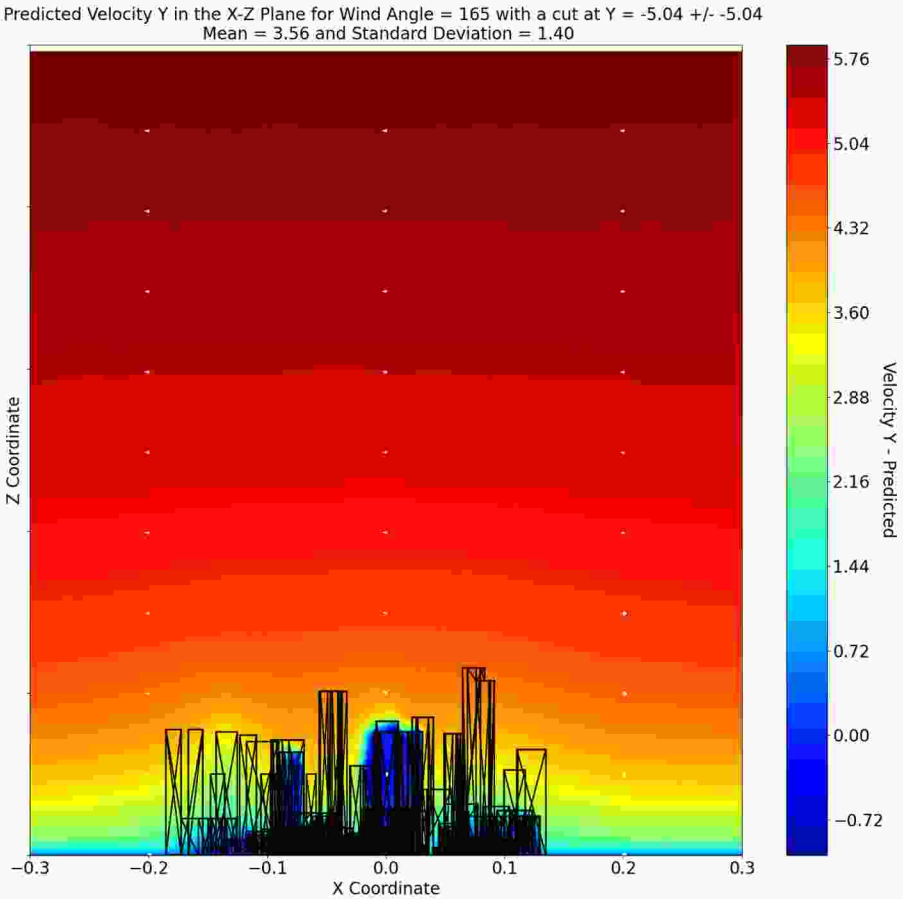
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



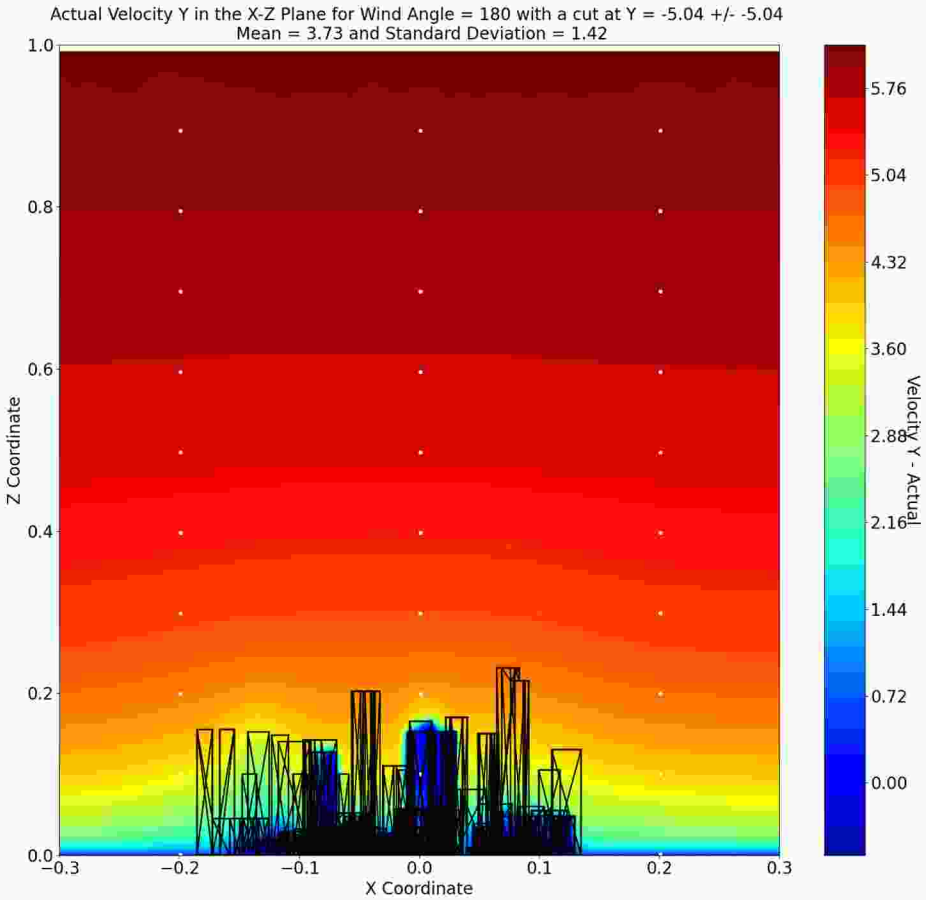


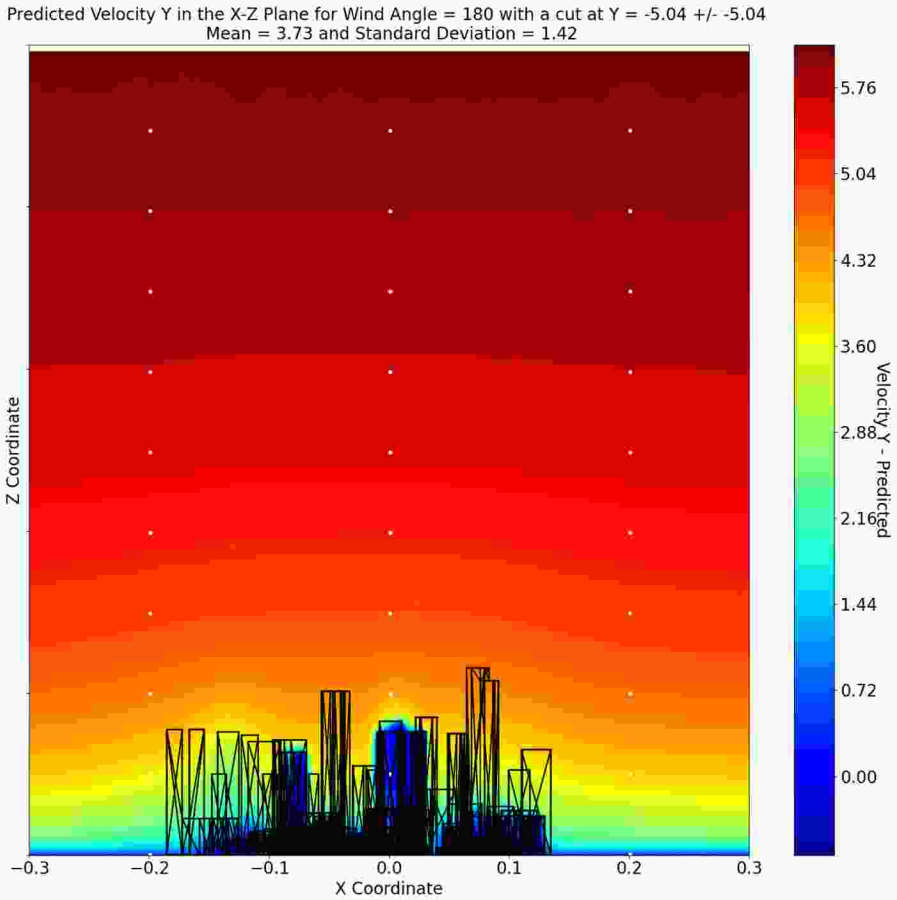
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



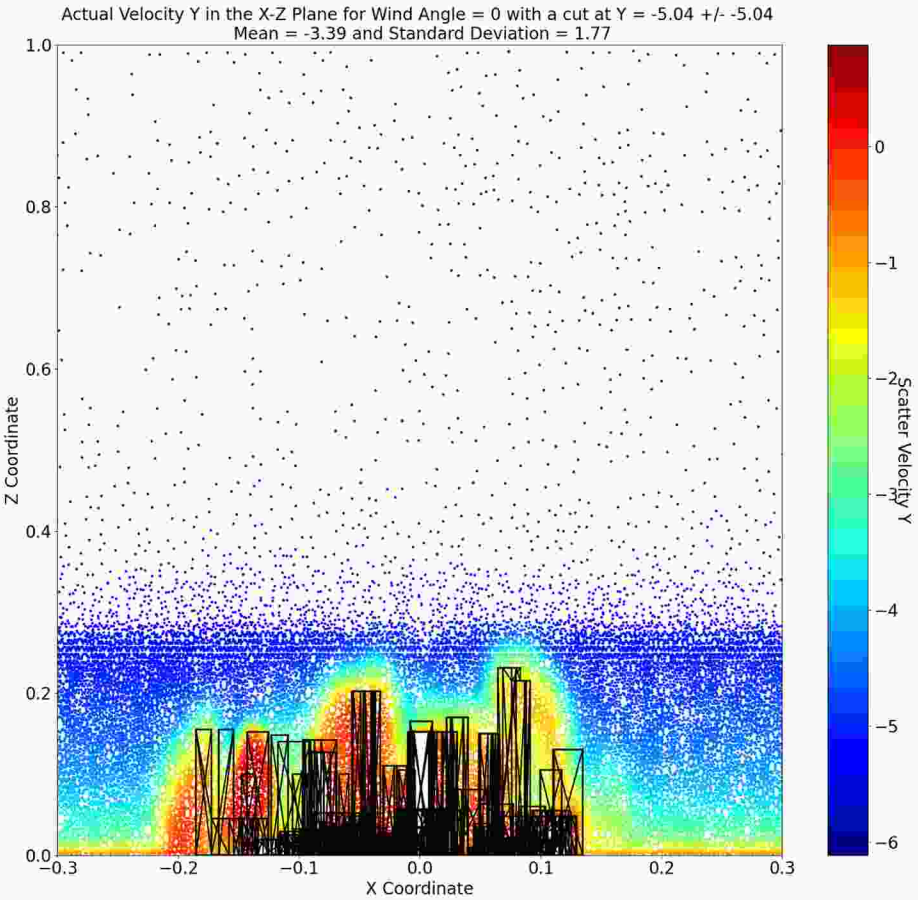


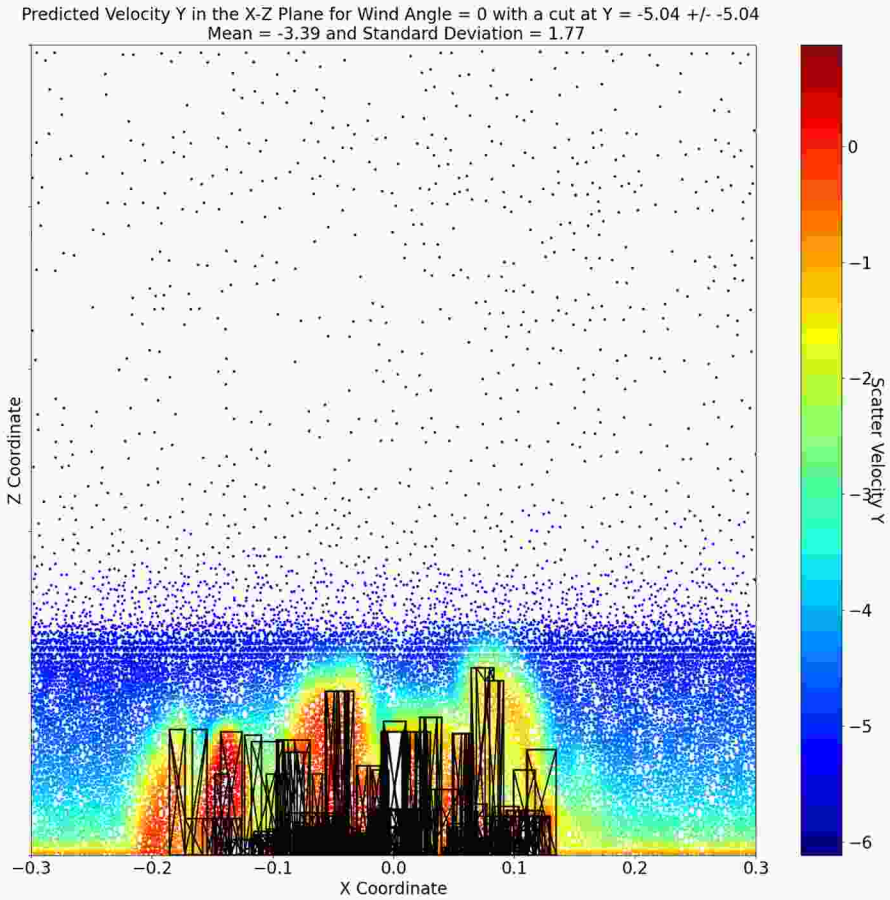
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



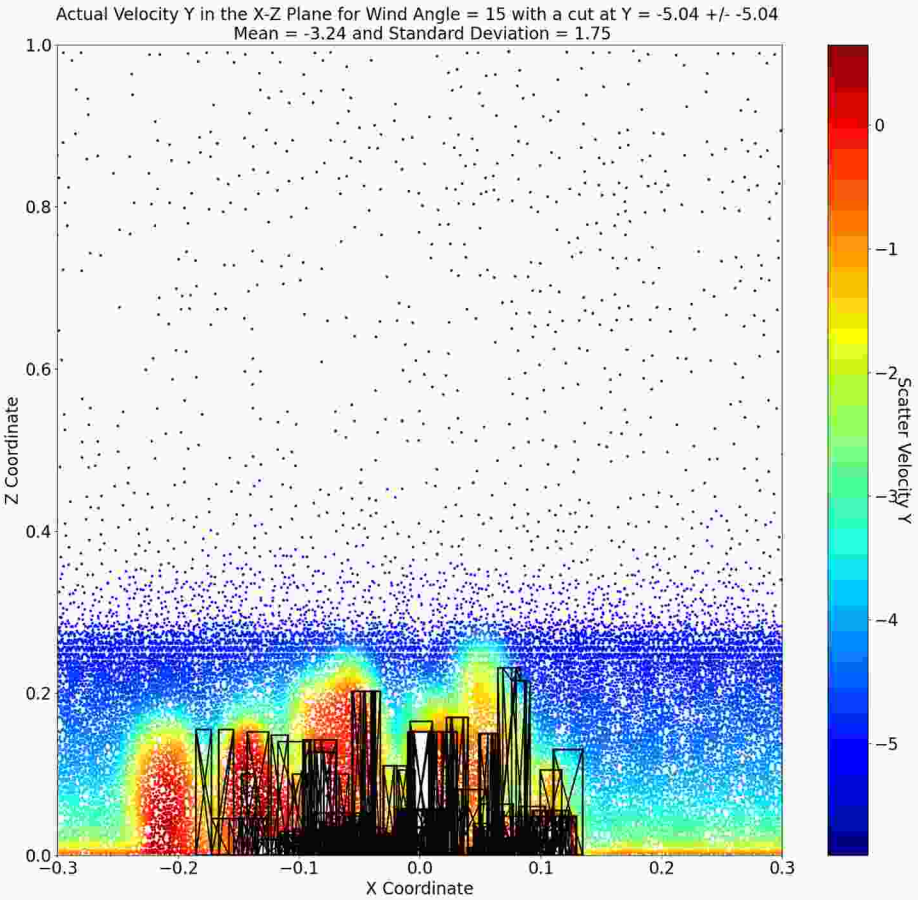


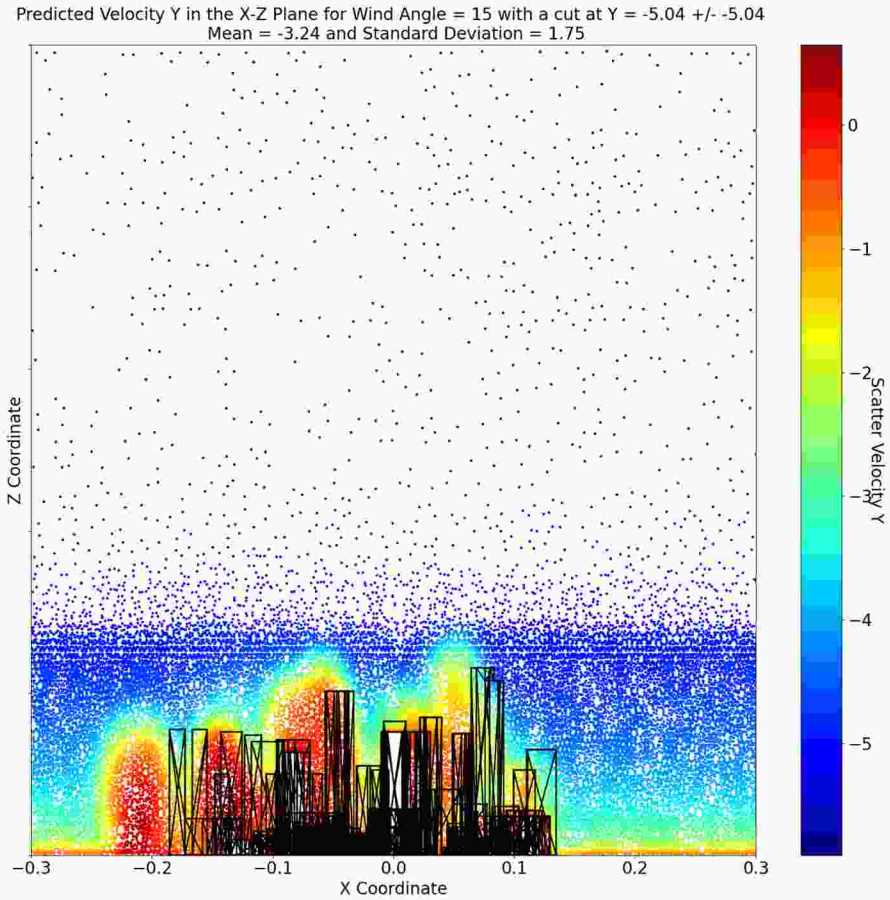
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



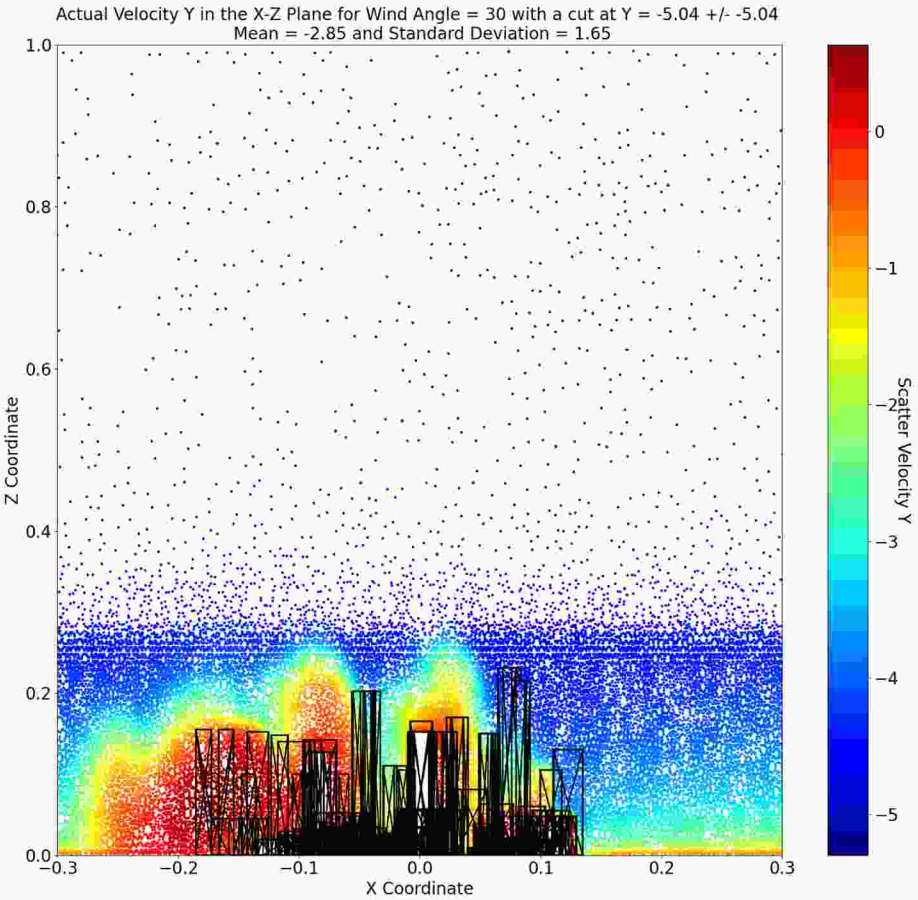


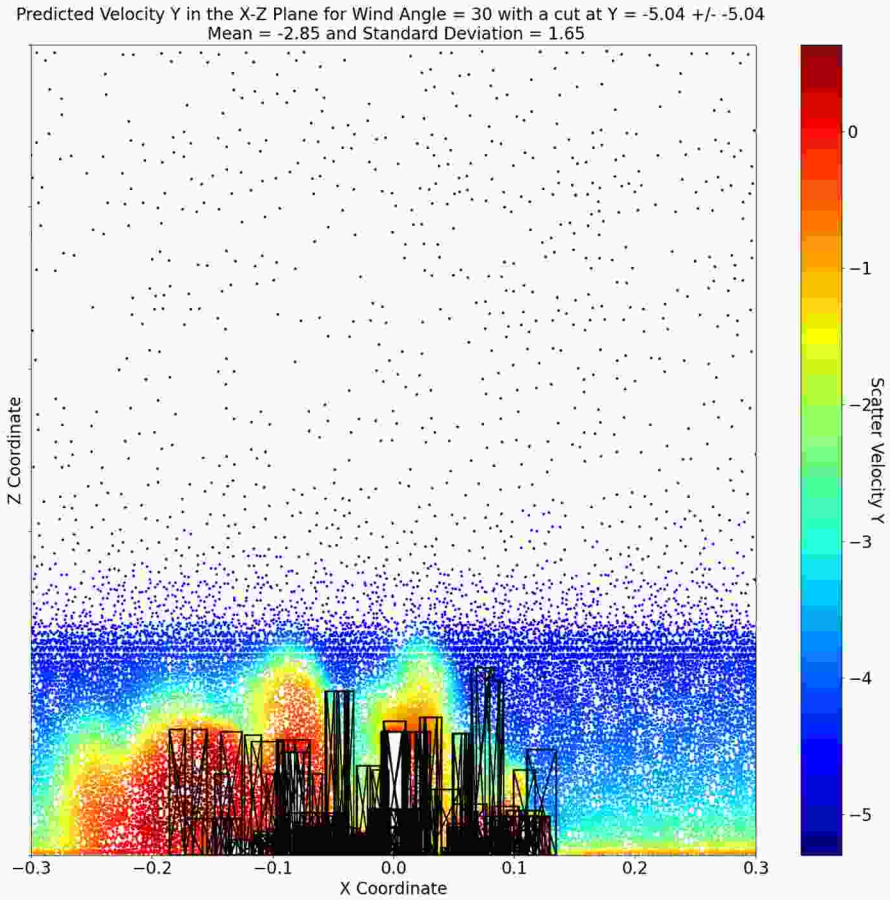
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



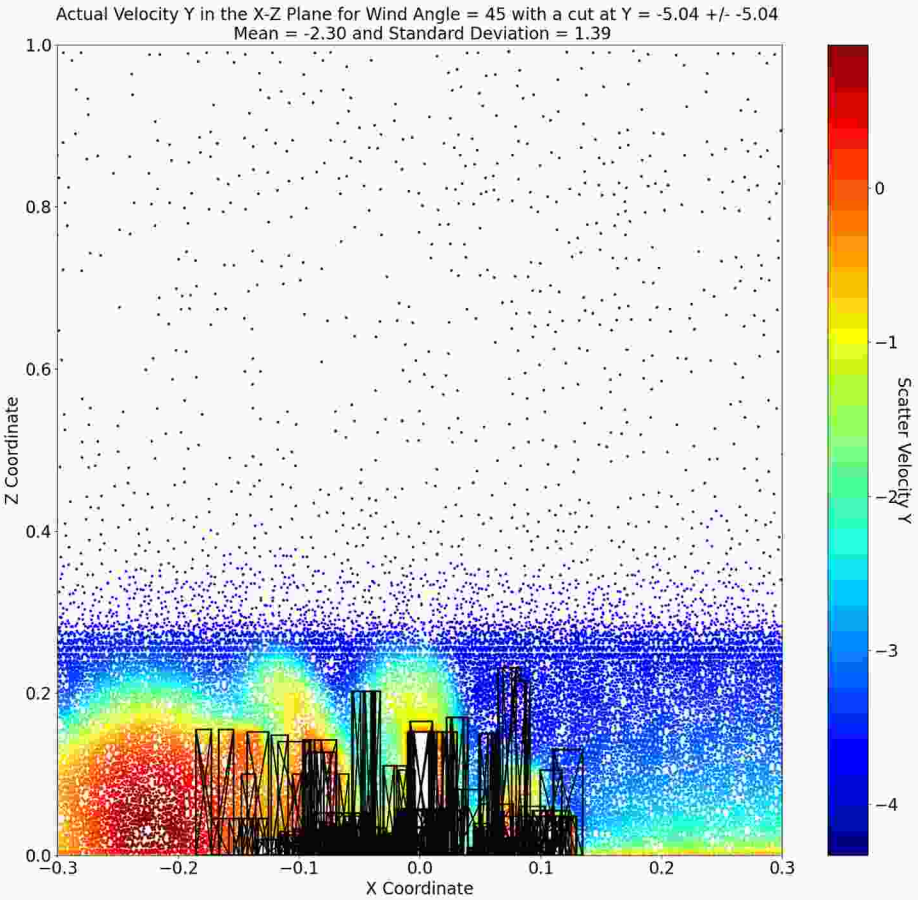


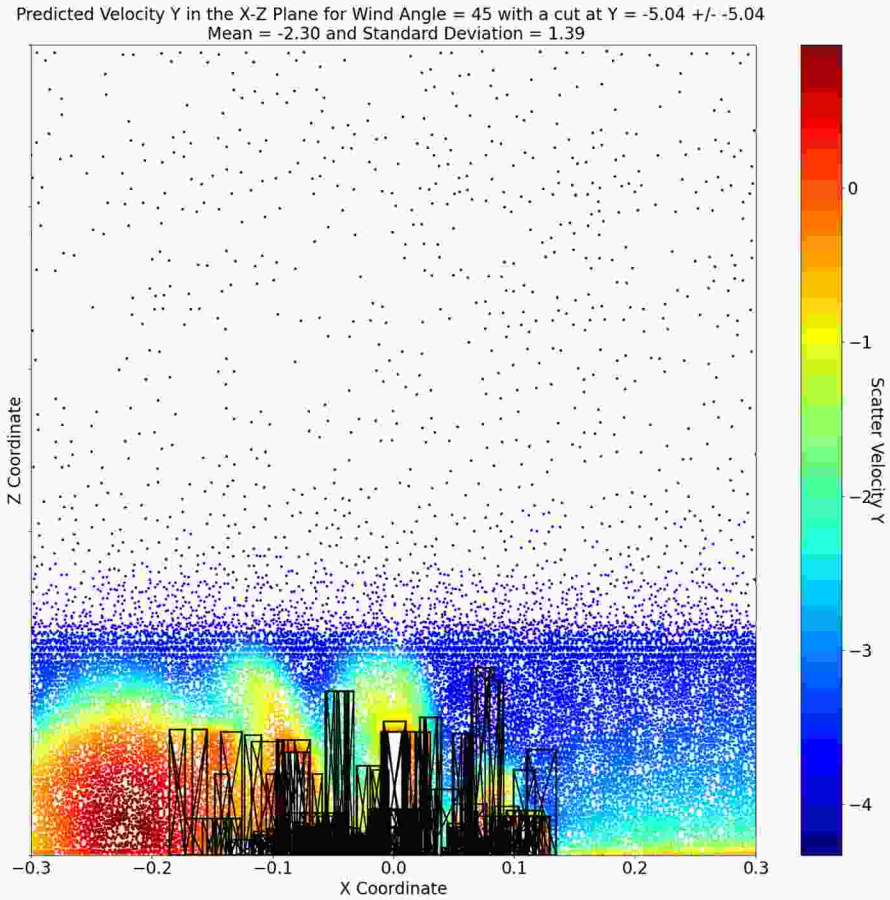
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



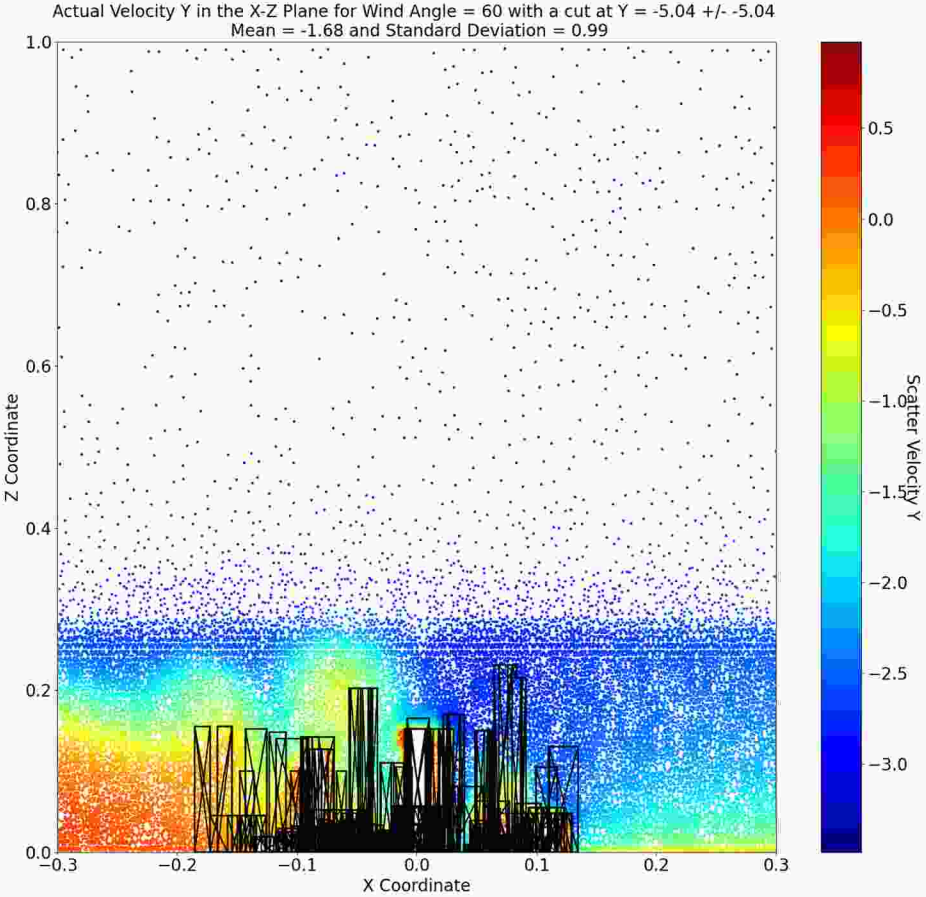


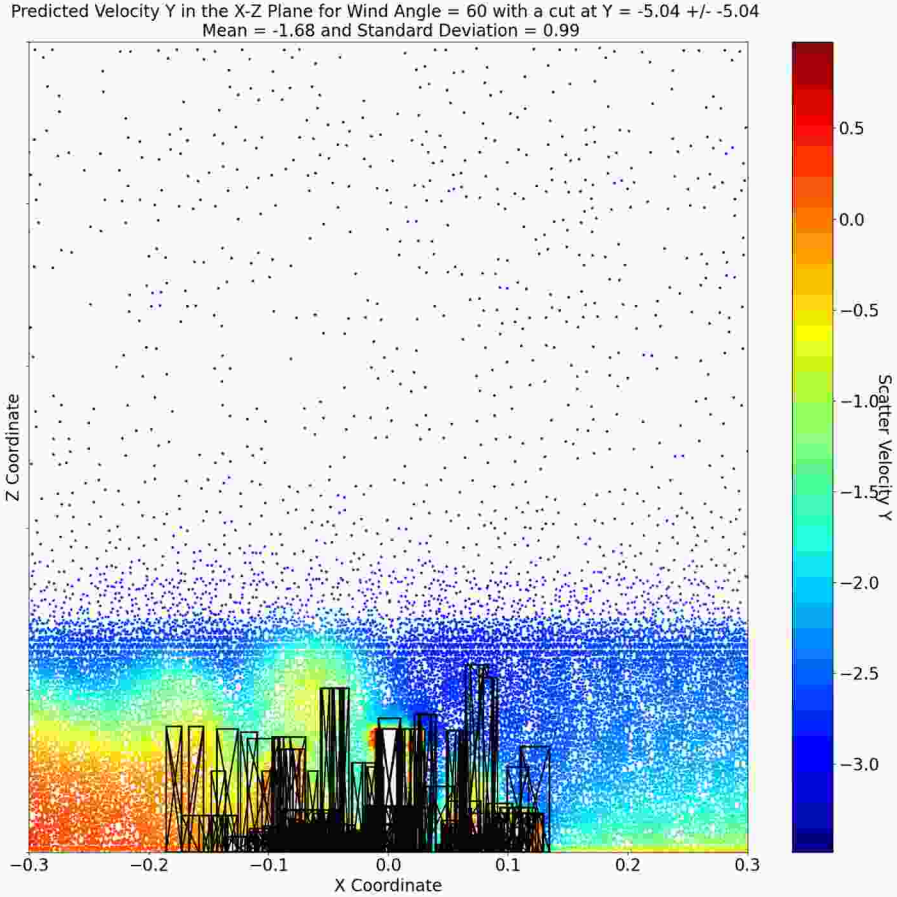
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



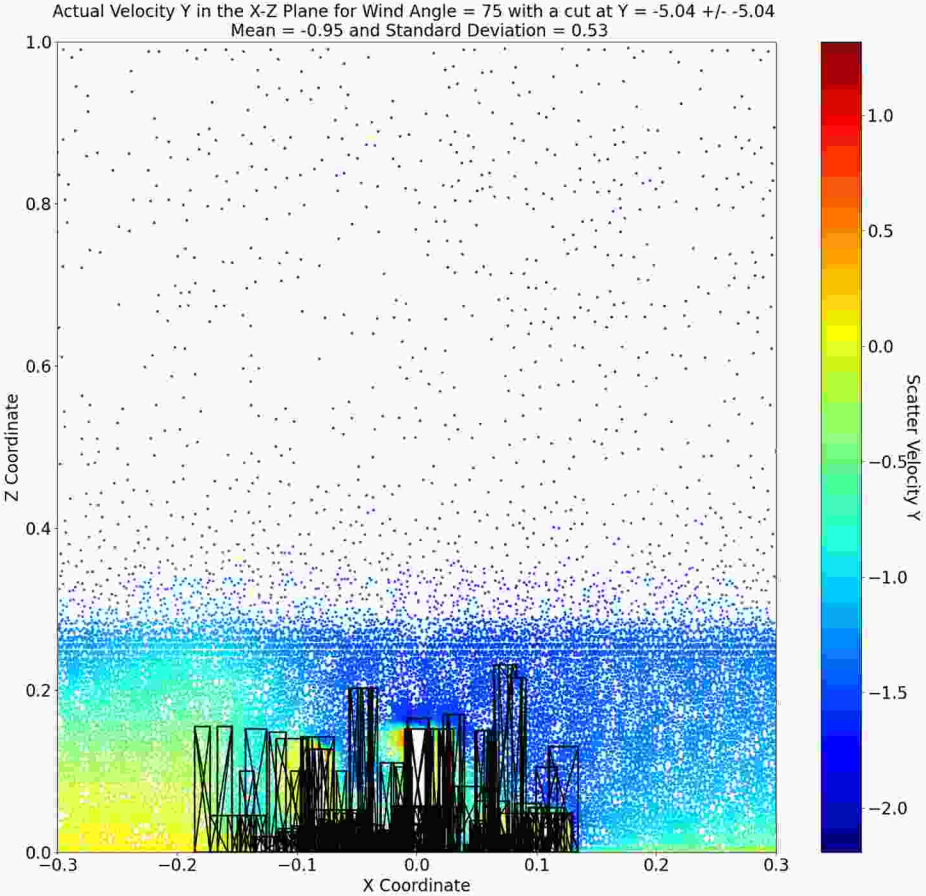


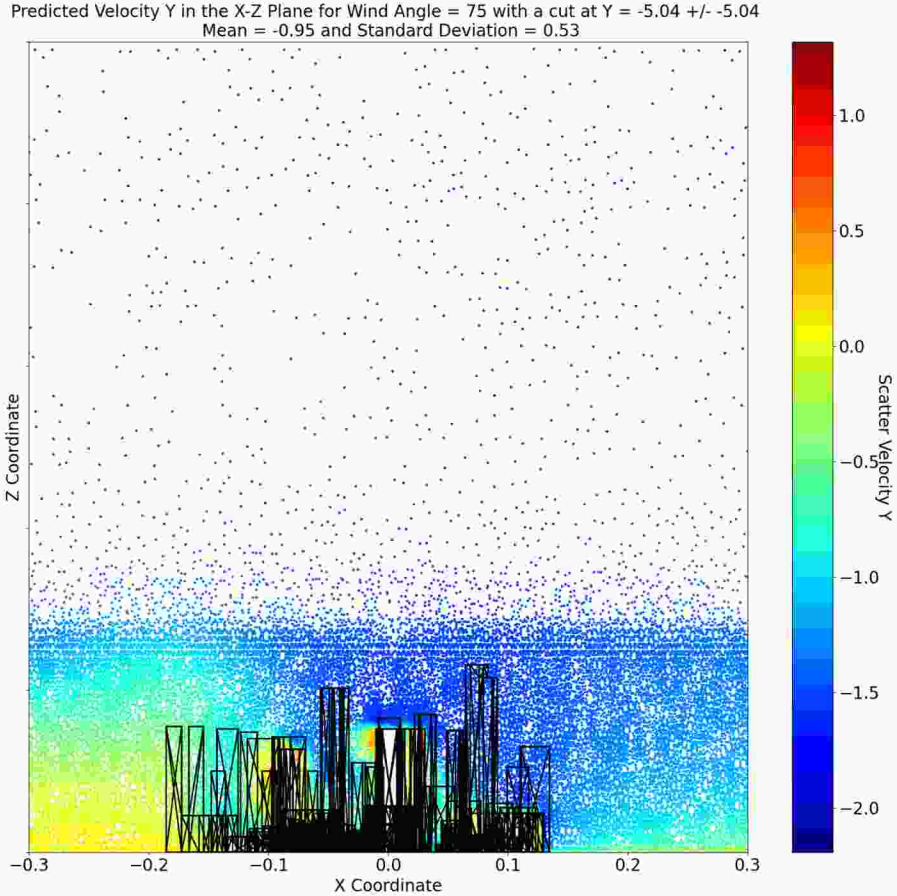
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



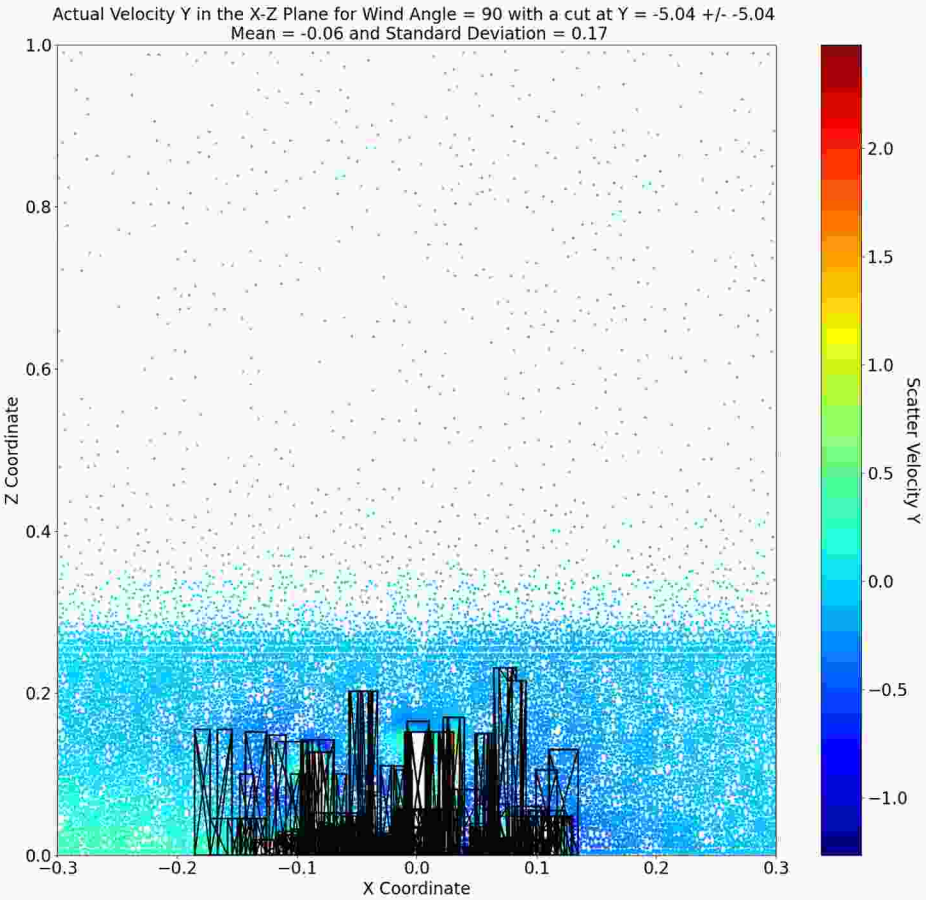


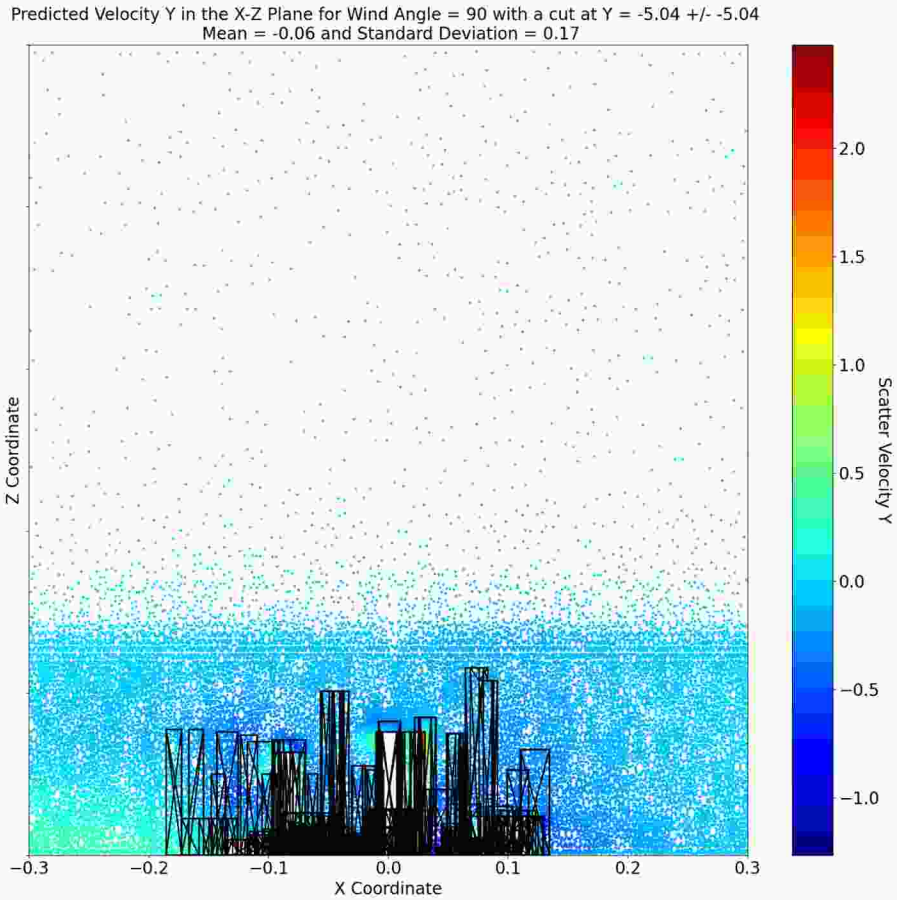
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



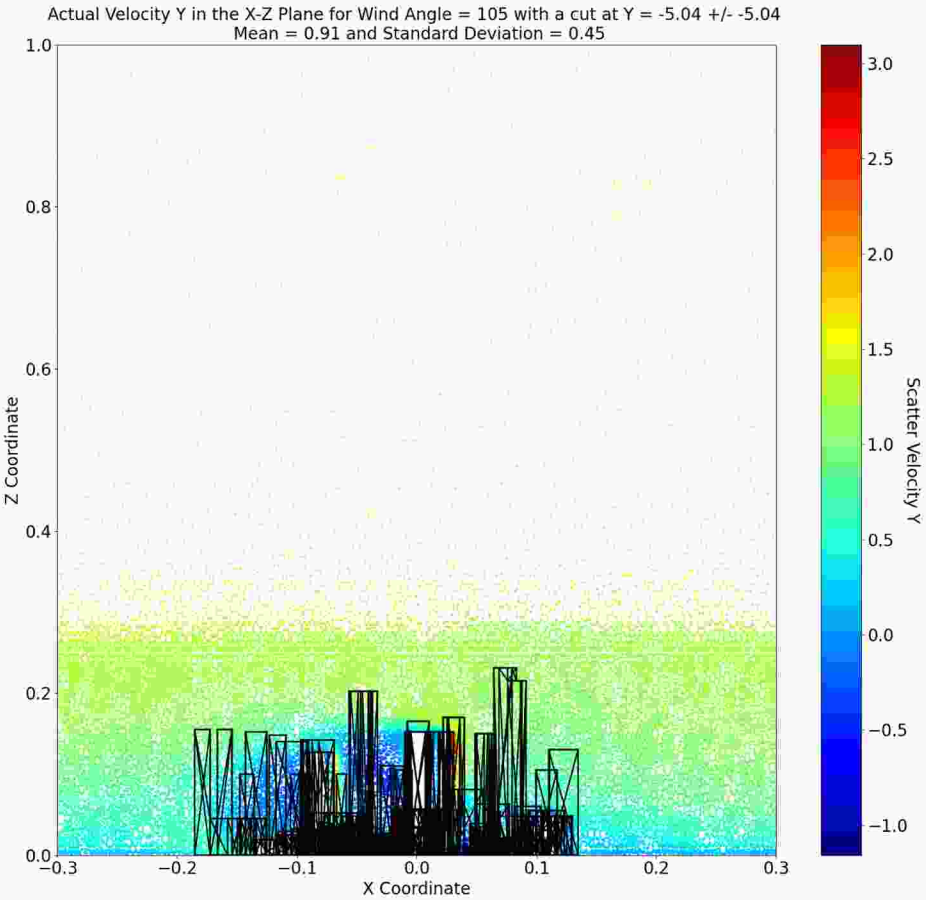


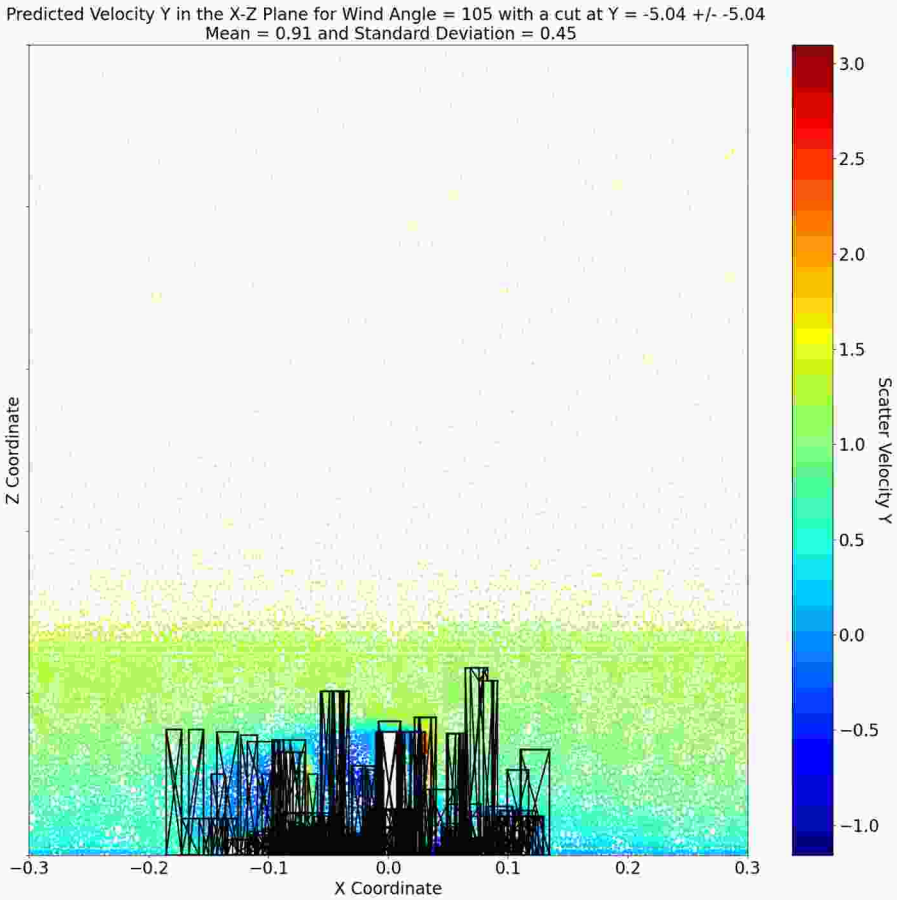
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



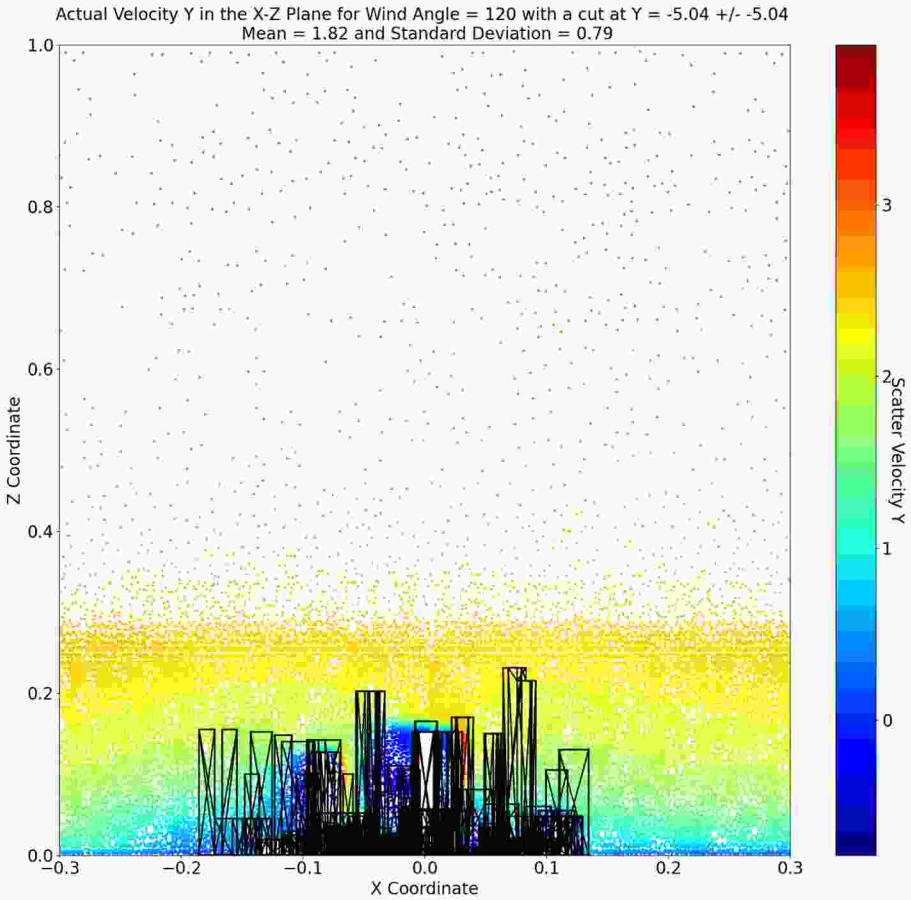


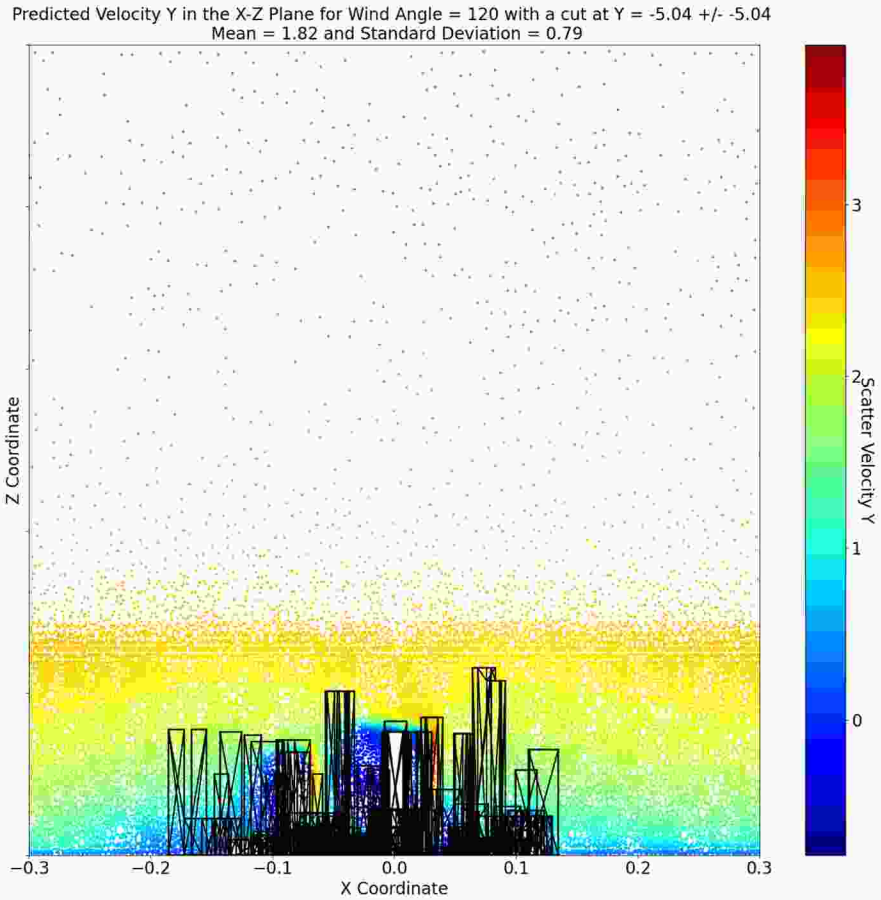
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



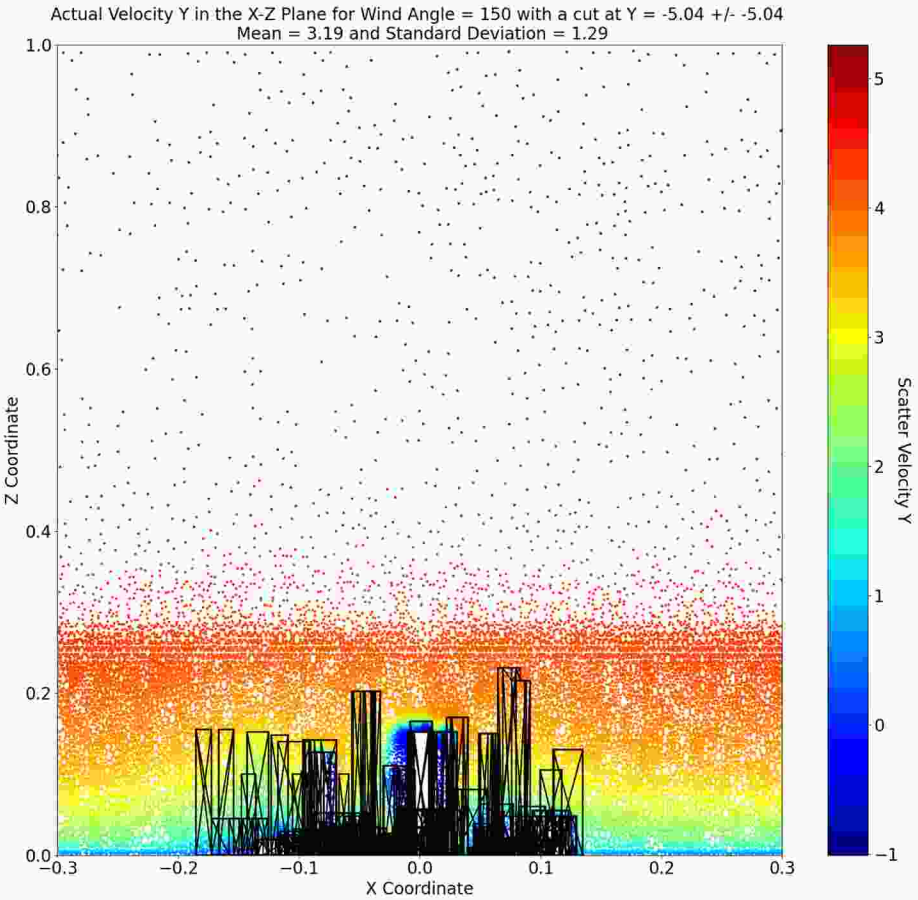


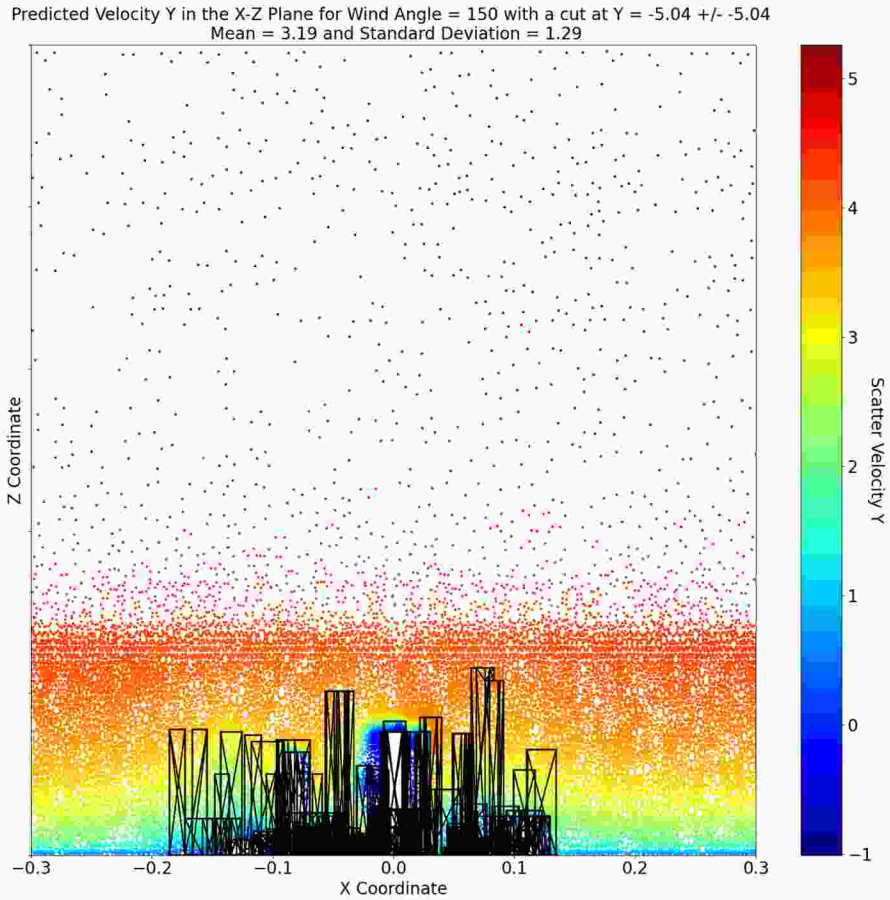
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



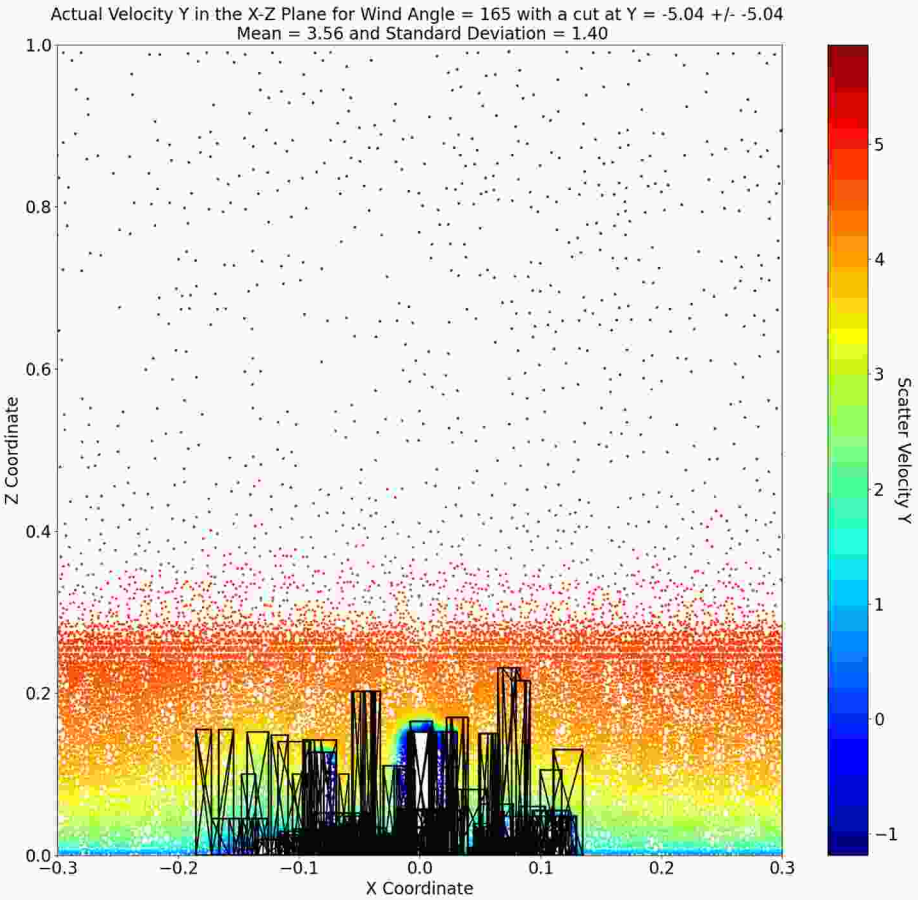


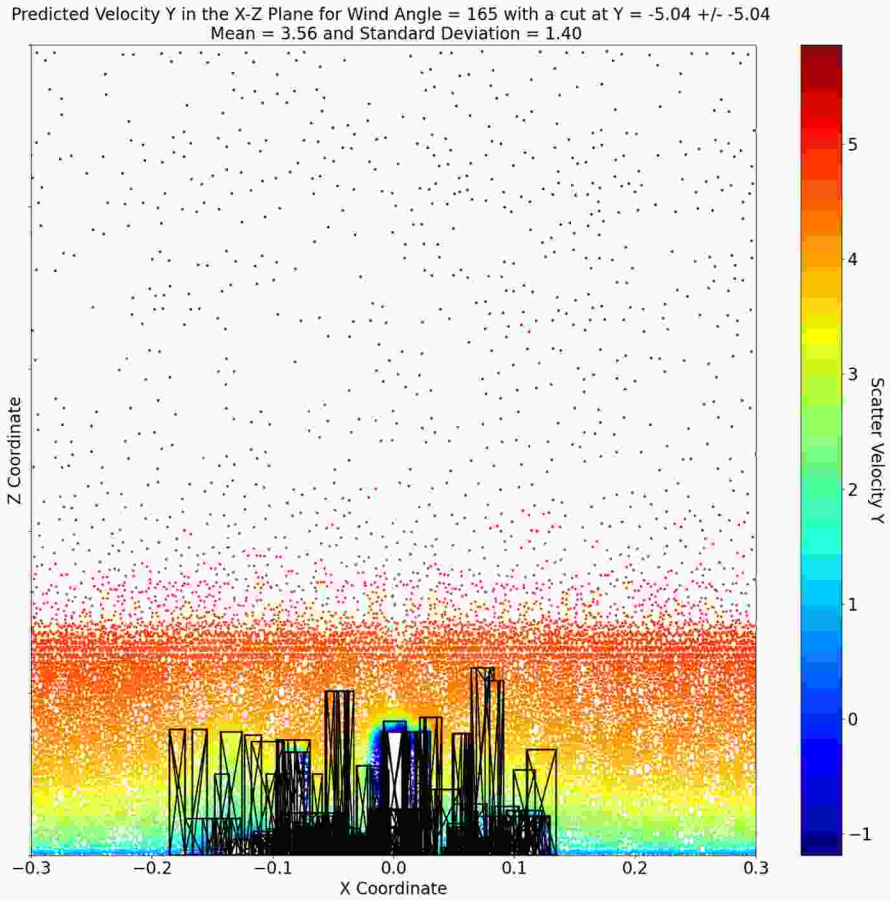
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



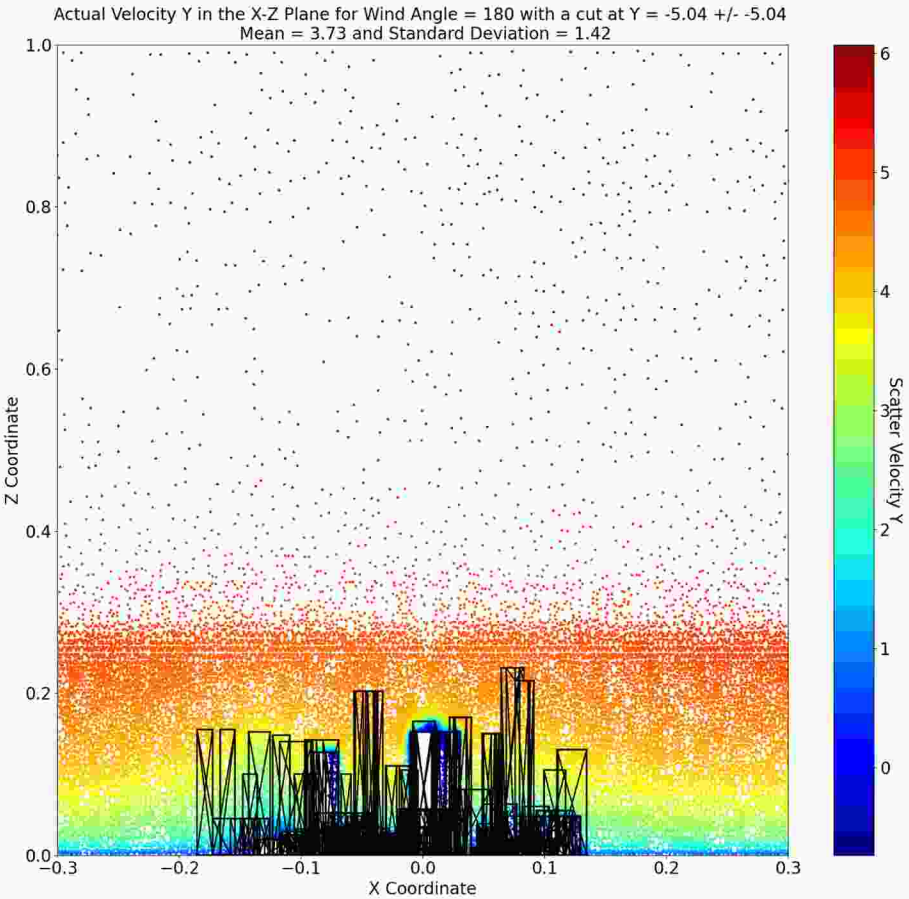


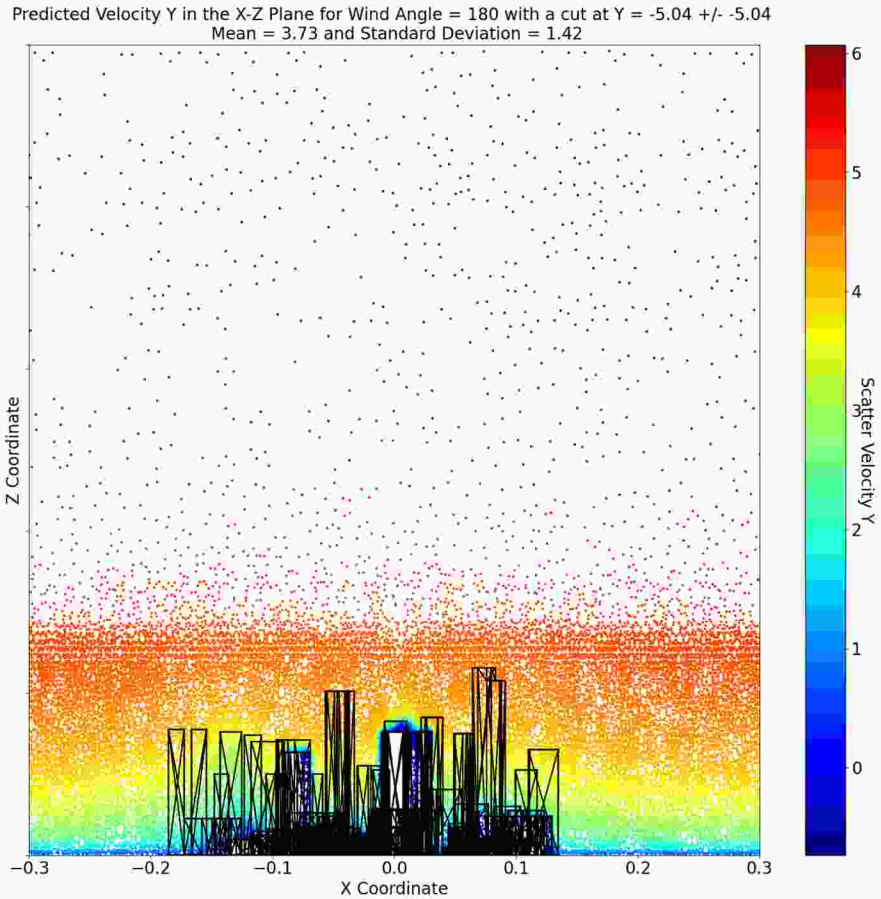
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

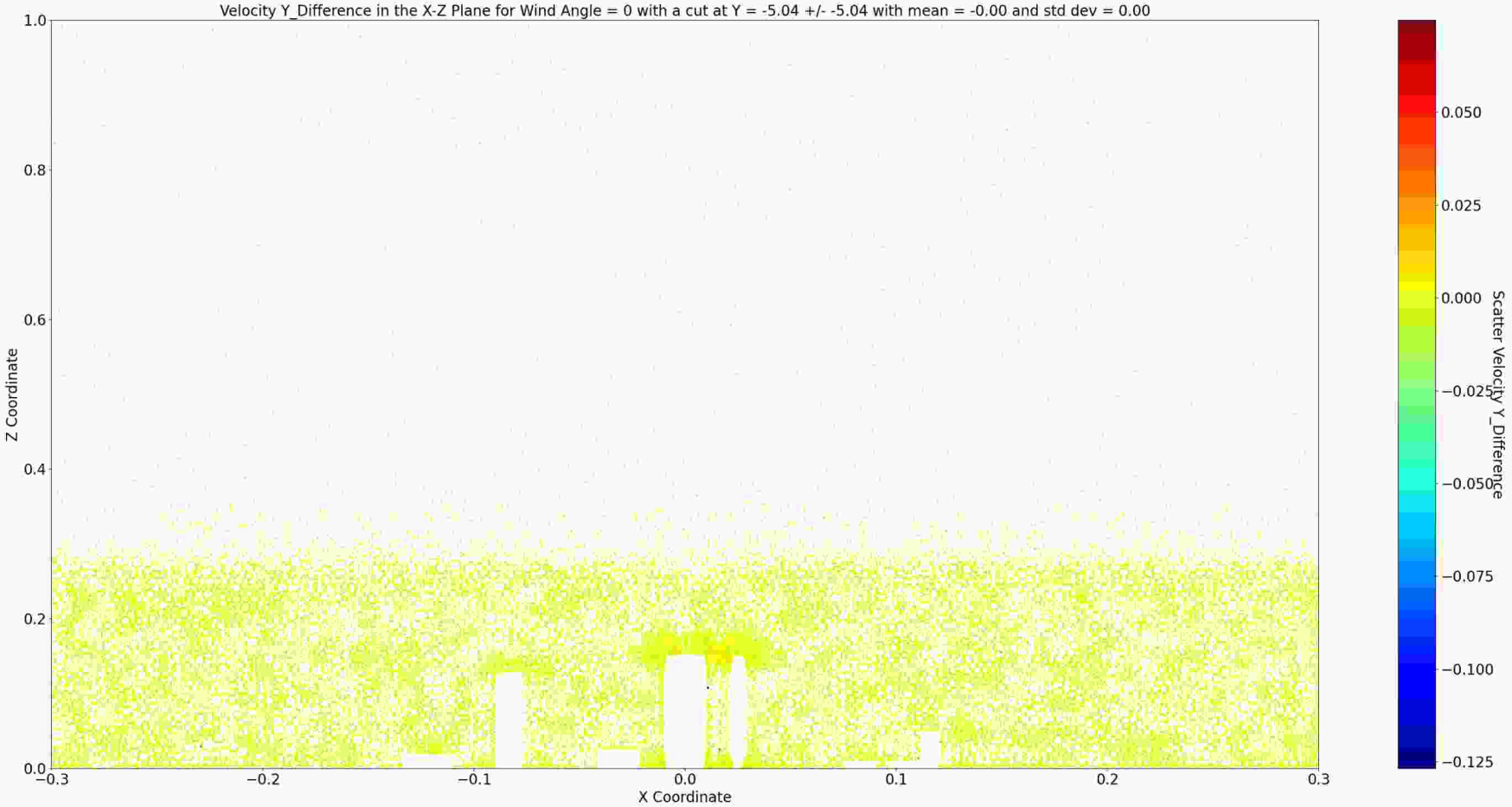


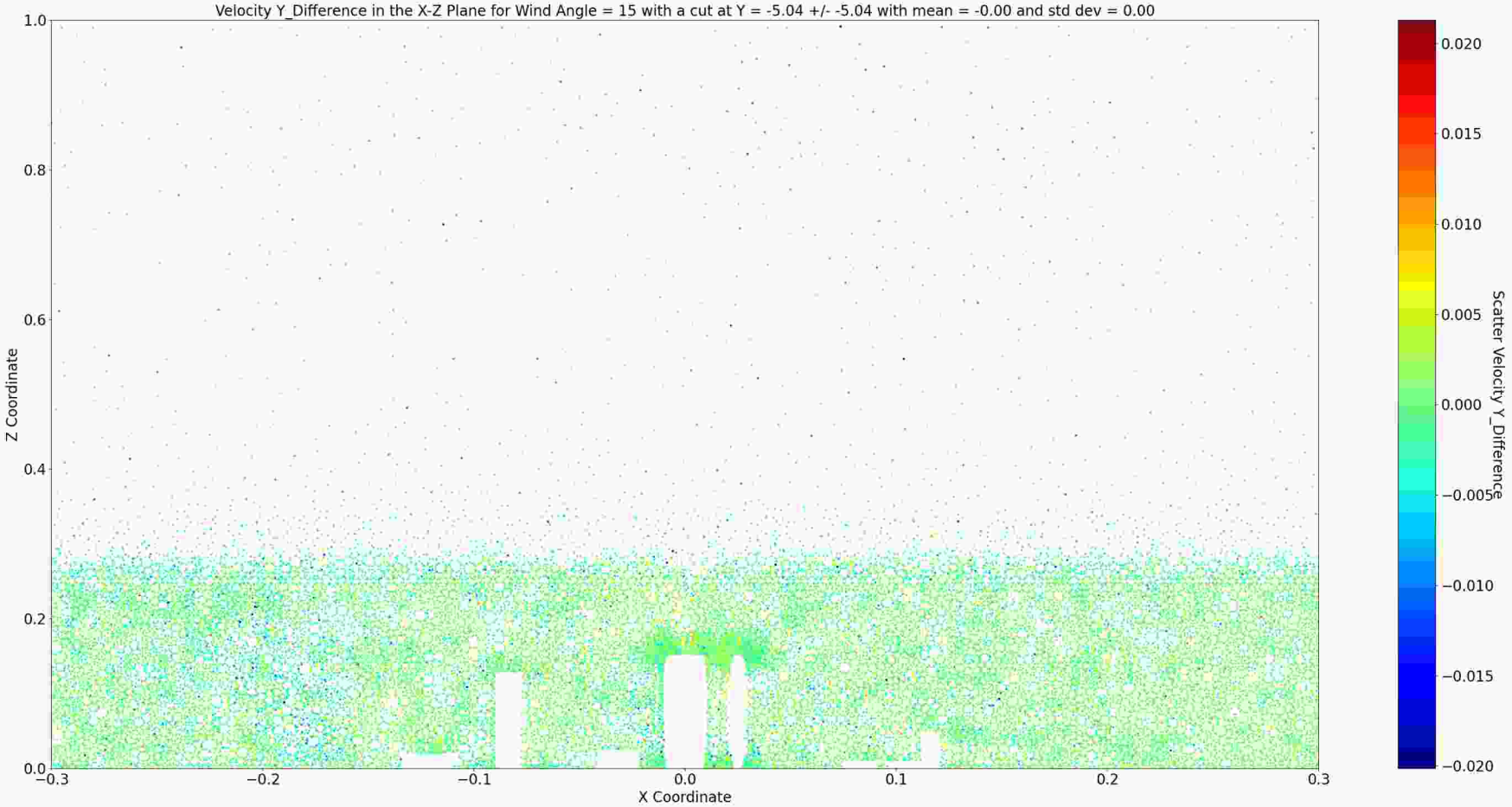


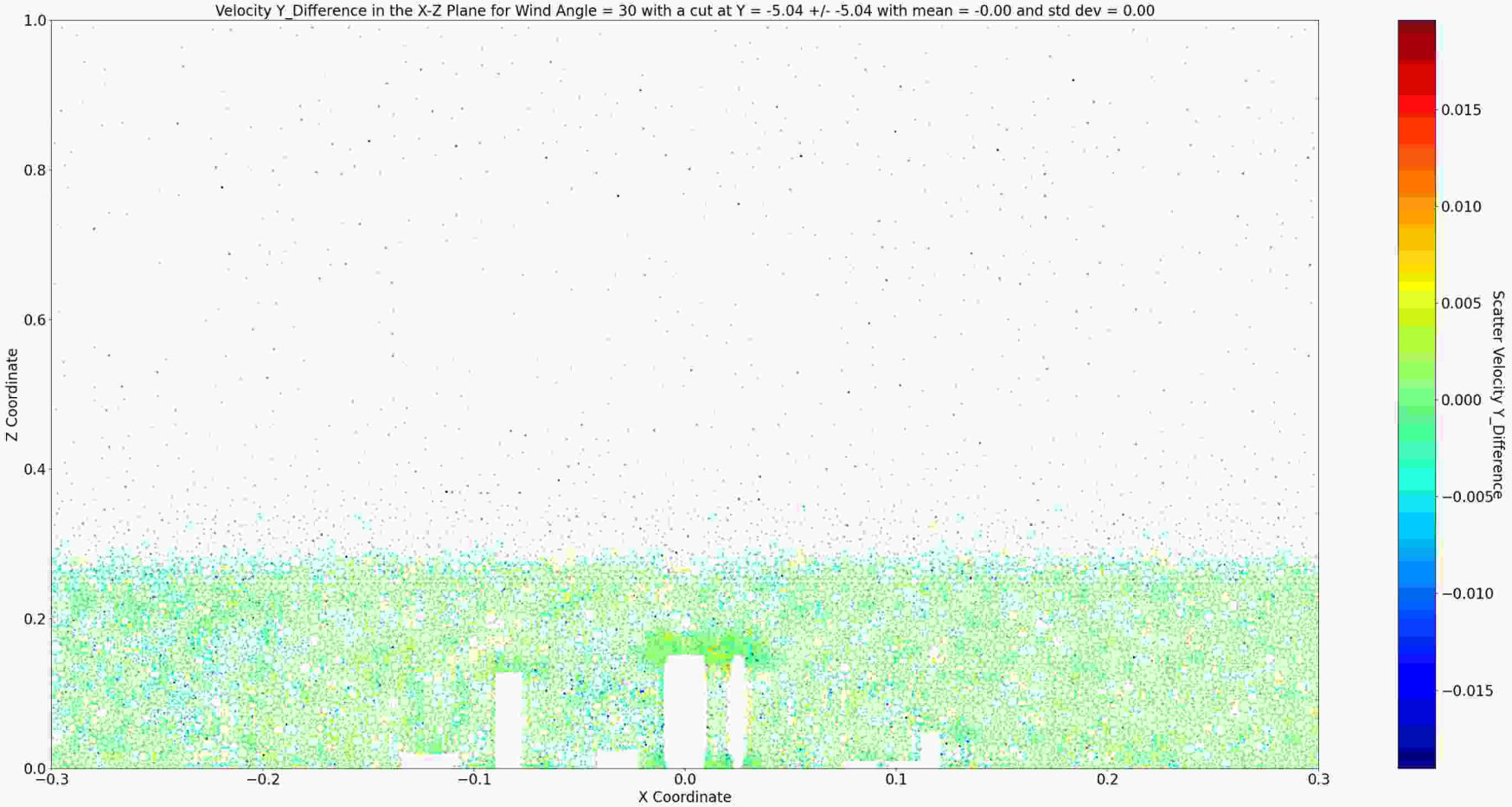
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

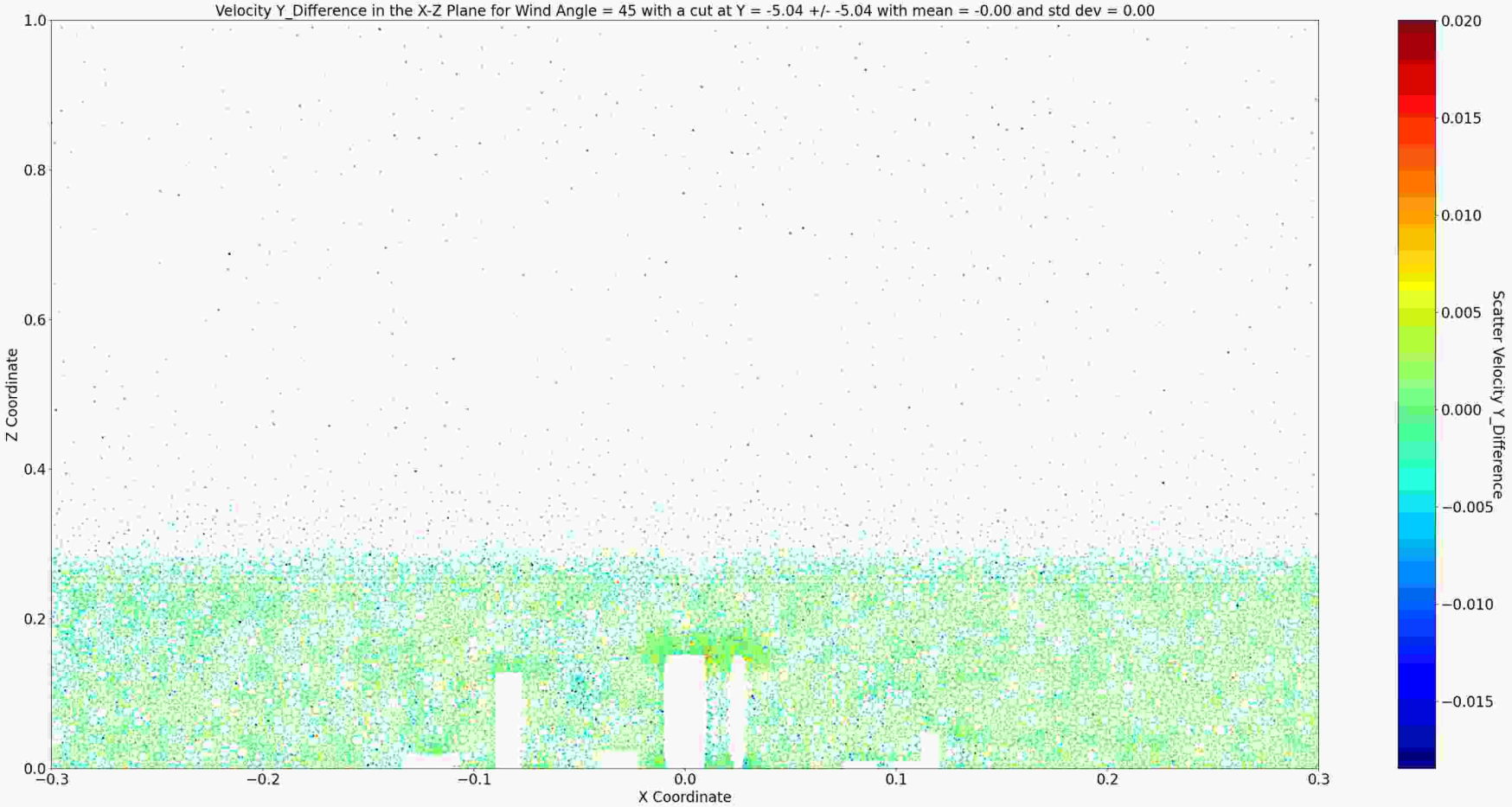


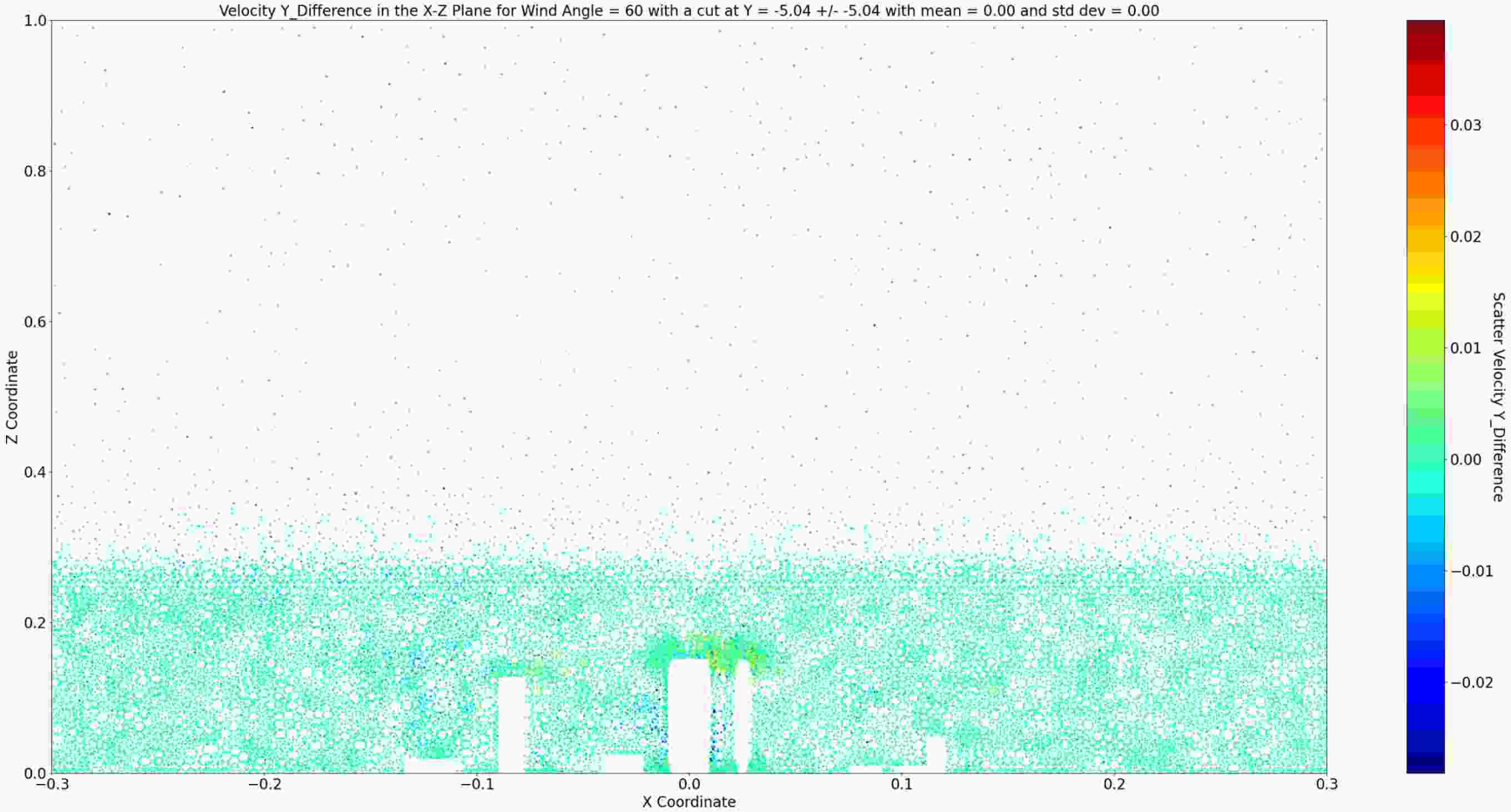


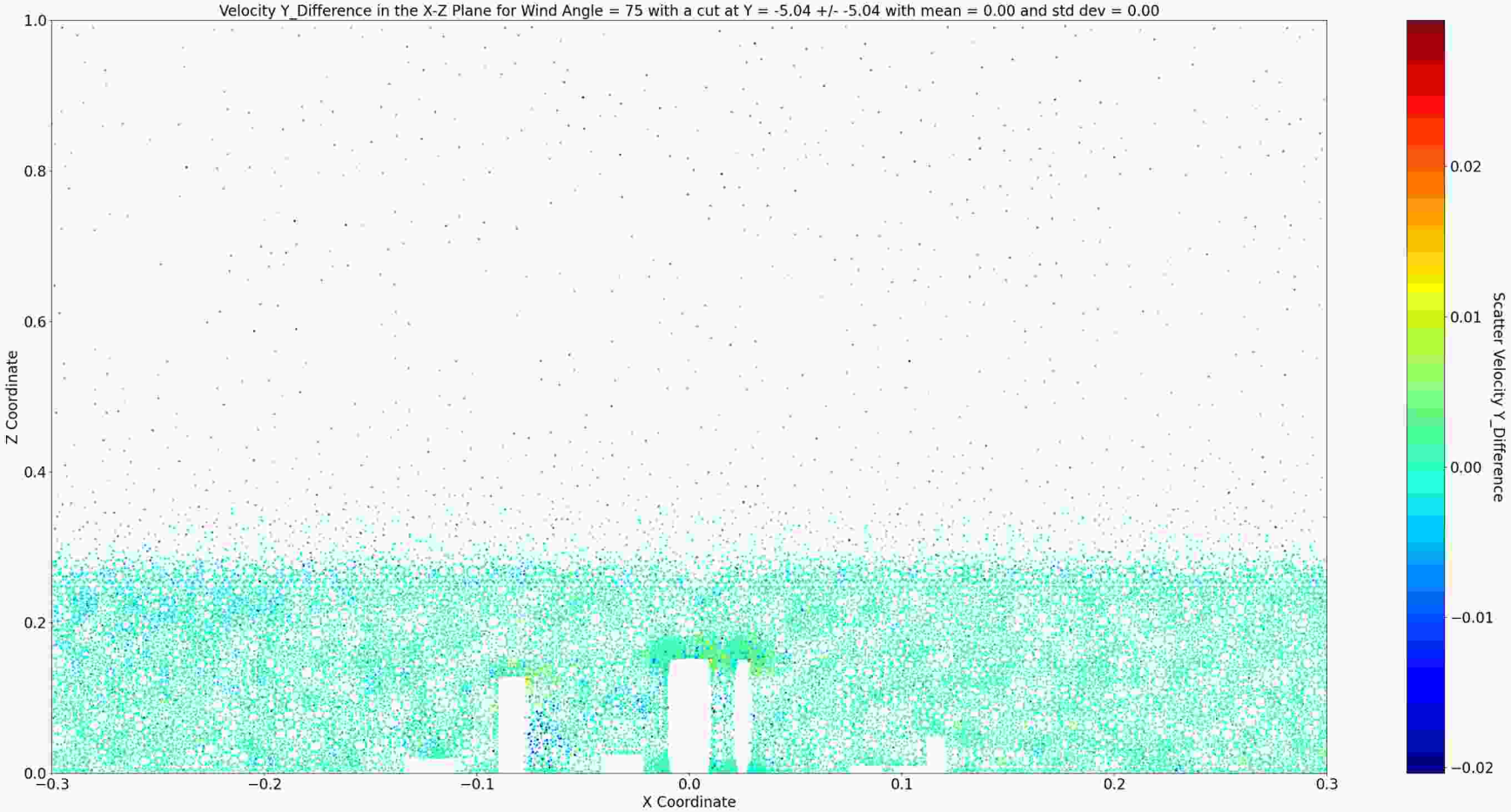

Velocity Y_Difference in the X-Z Plane for Wind Angle = 0 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity Y_Difference
0.050
0.025
0.000
−0.025
−0.050
−0.075
−0.100
−0.125

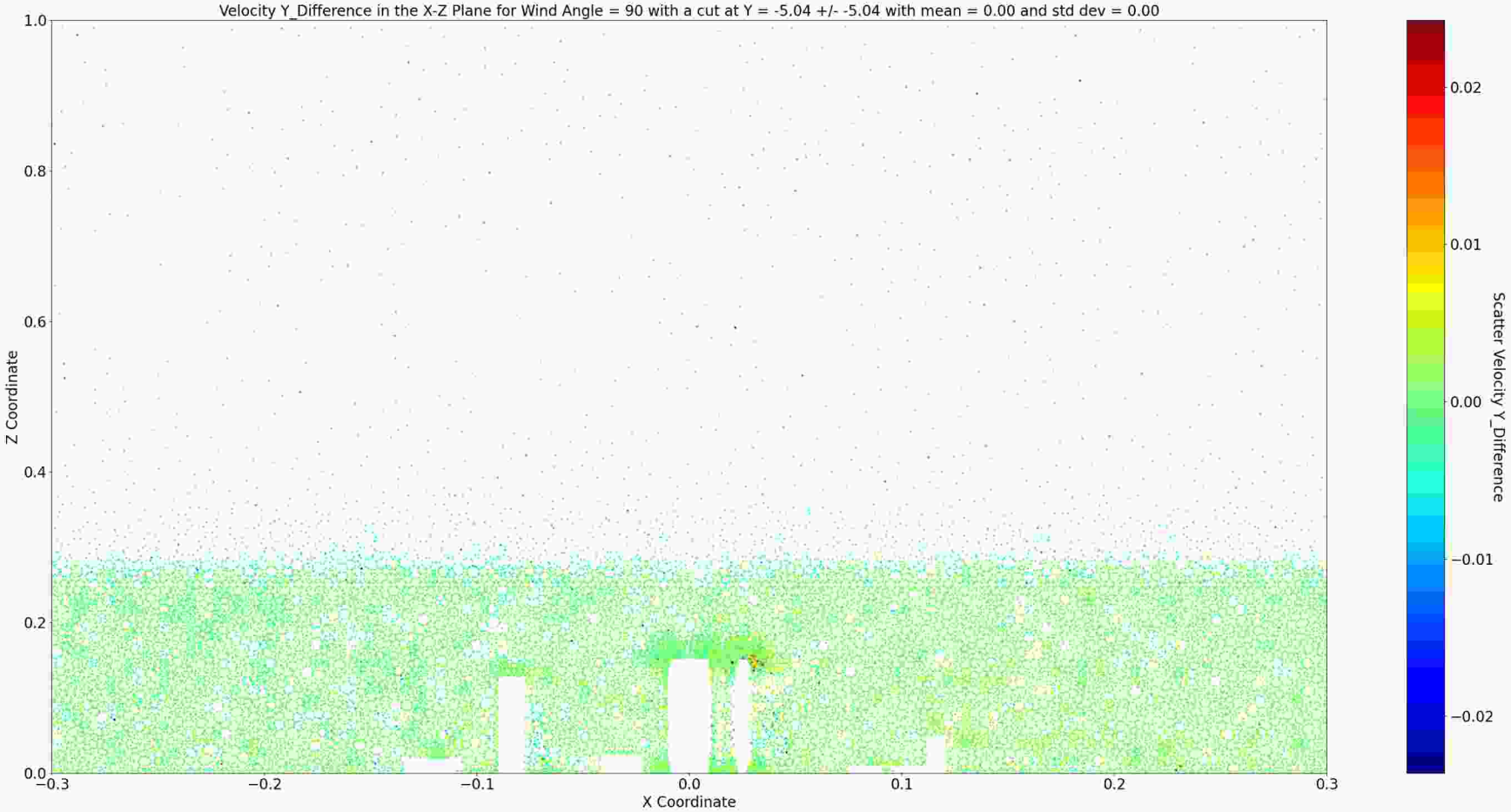

Velocity Y_Difference in the X-Z Plane for Wind Angle = 15 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015
−0.020

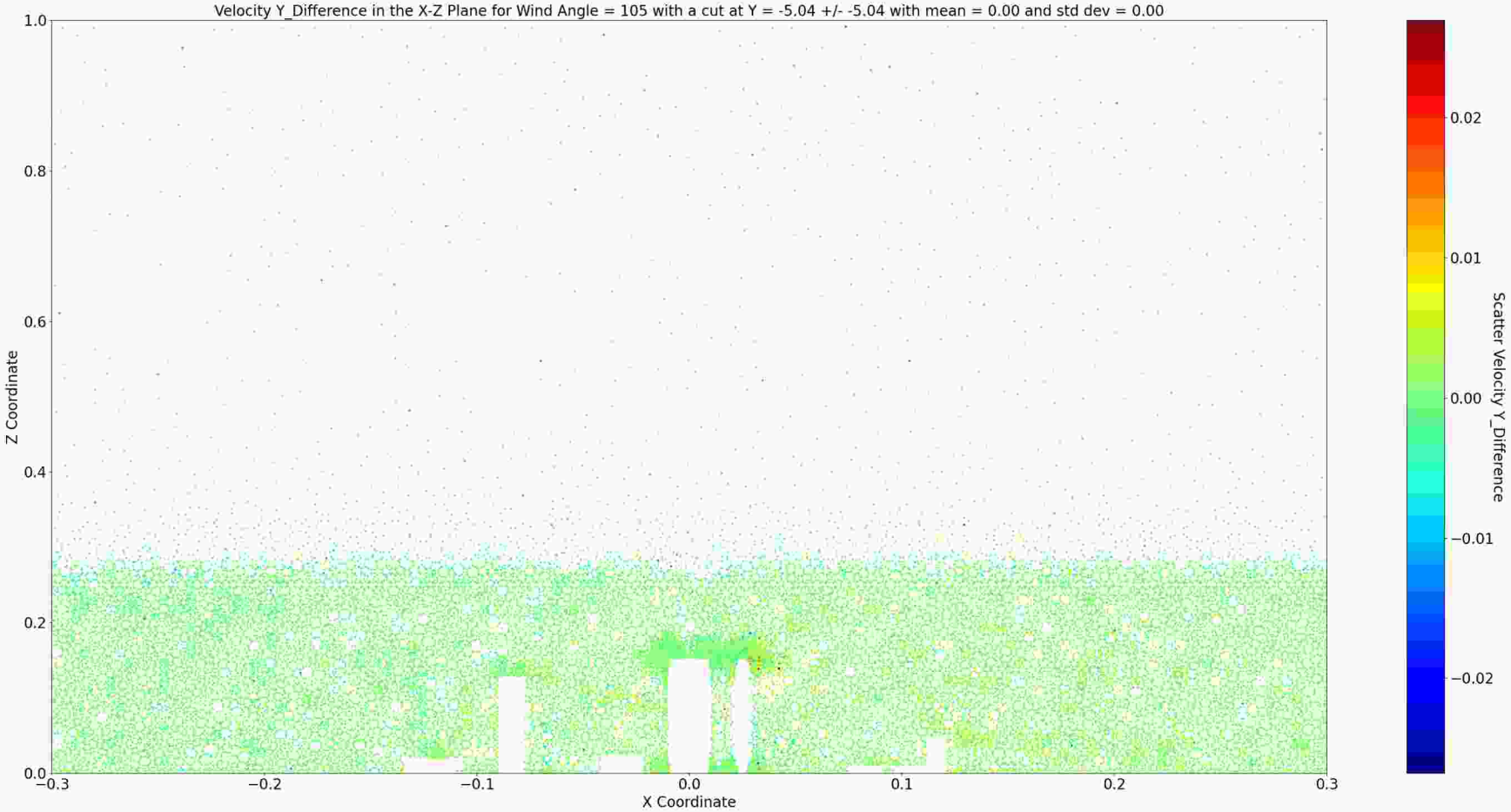

Velocity Y_Difference in the X-Z Plane for Wind Angle = 30 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015

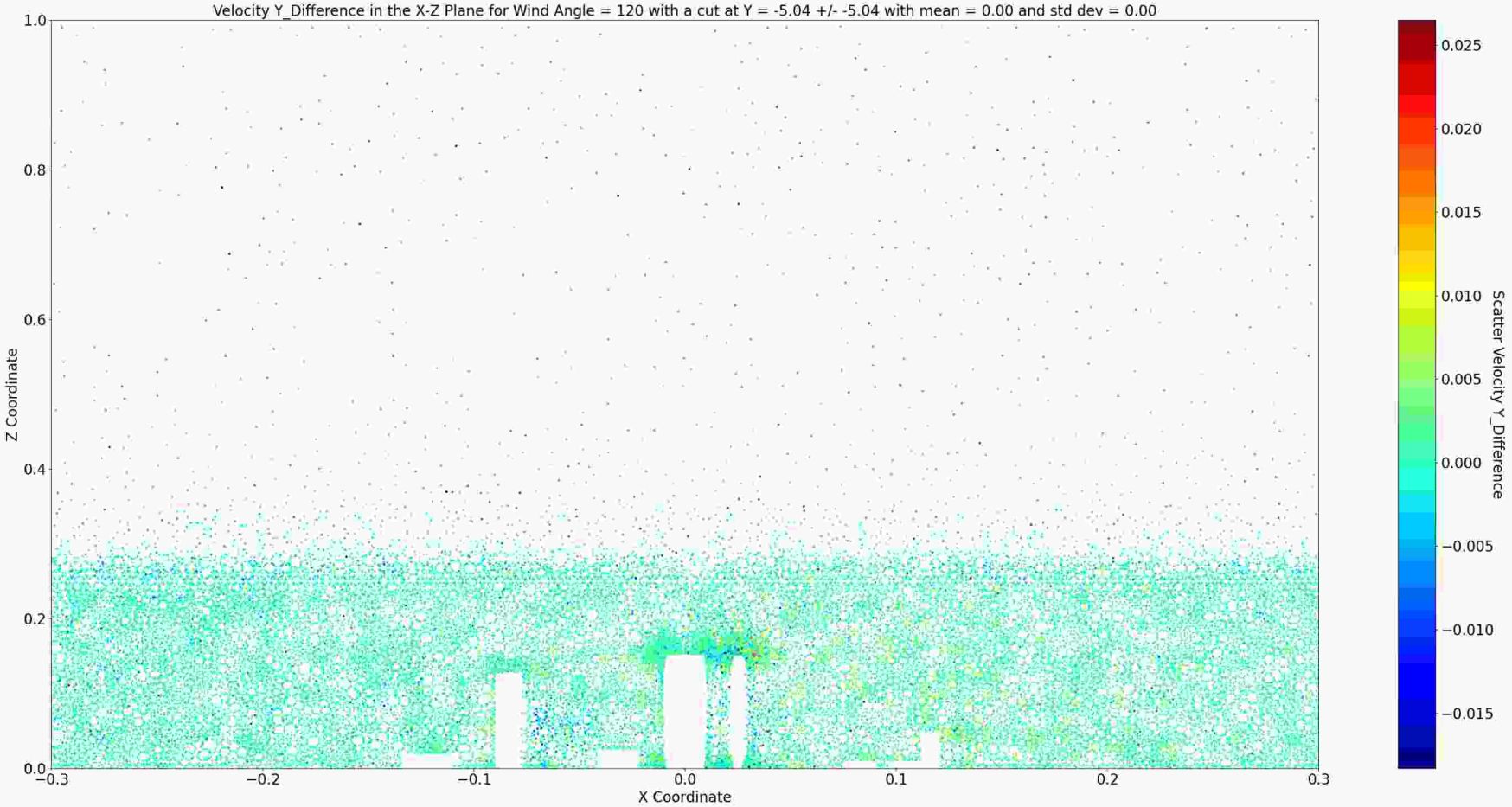

Velocity Y_Difference in the X-Z Plane for Wind Angle = 45 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015

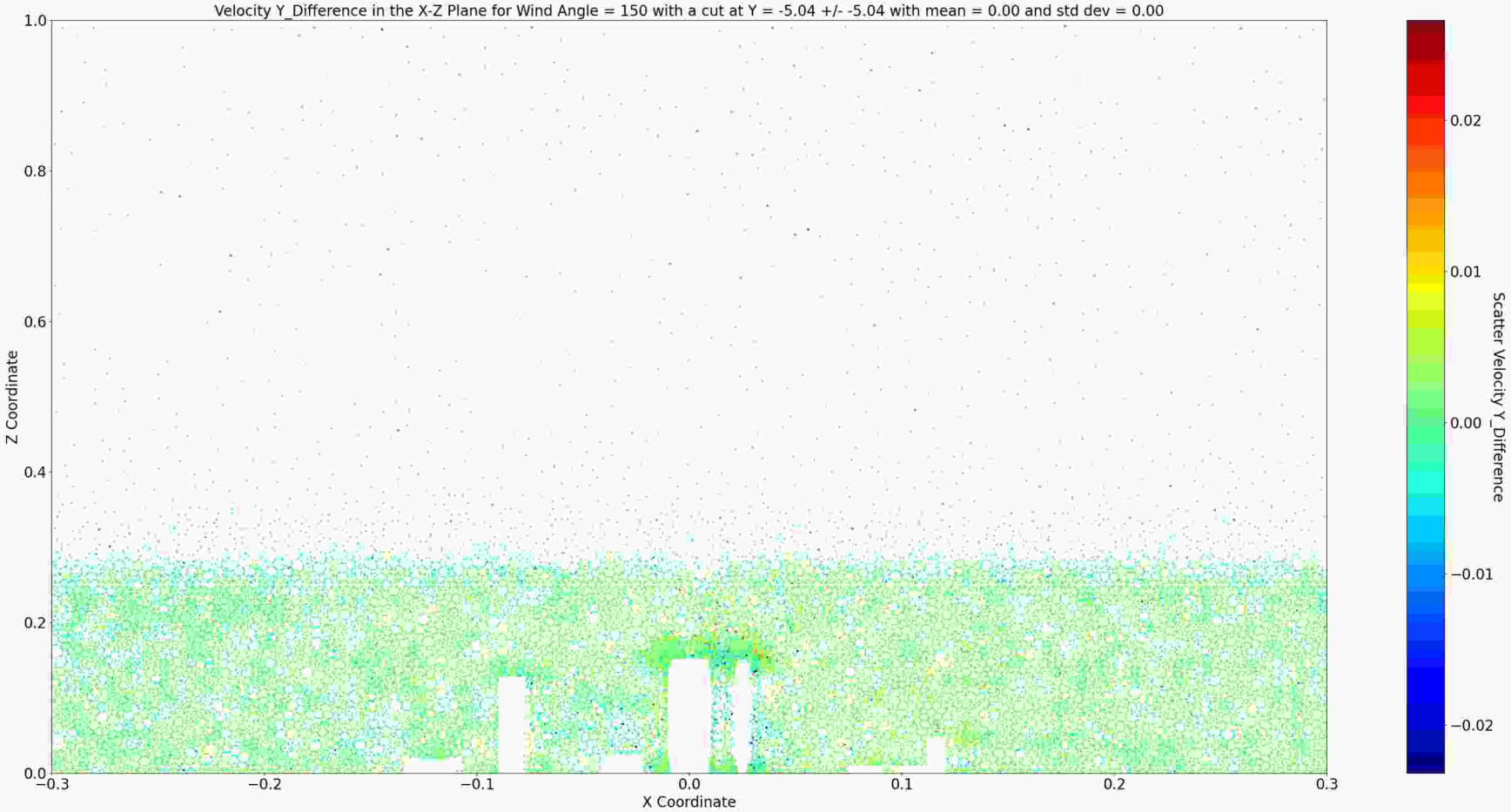

Velocity Y_Difference in the X-Z Plane for Wind Angle = 60 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.03
0.02
0.01
0.00
−0.01
−0.02

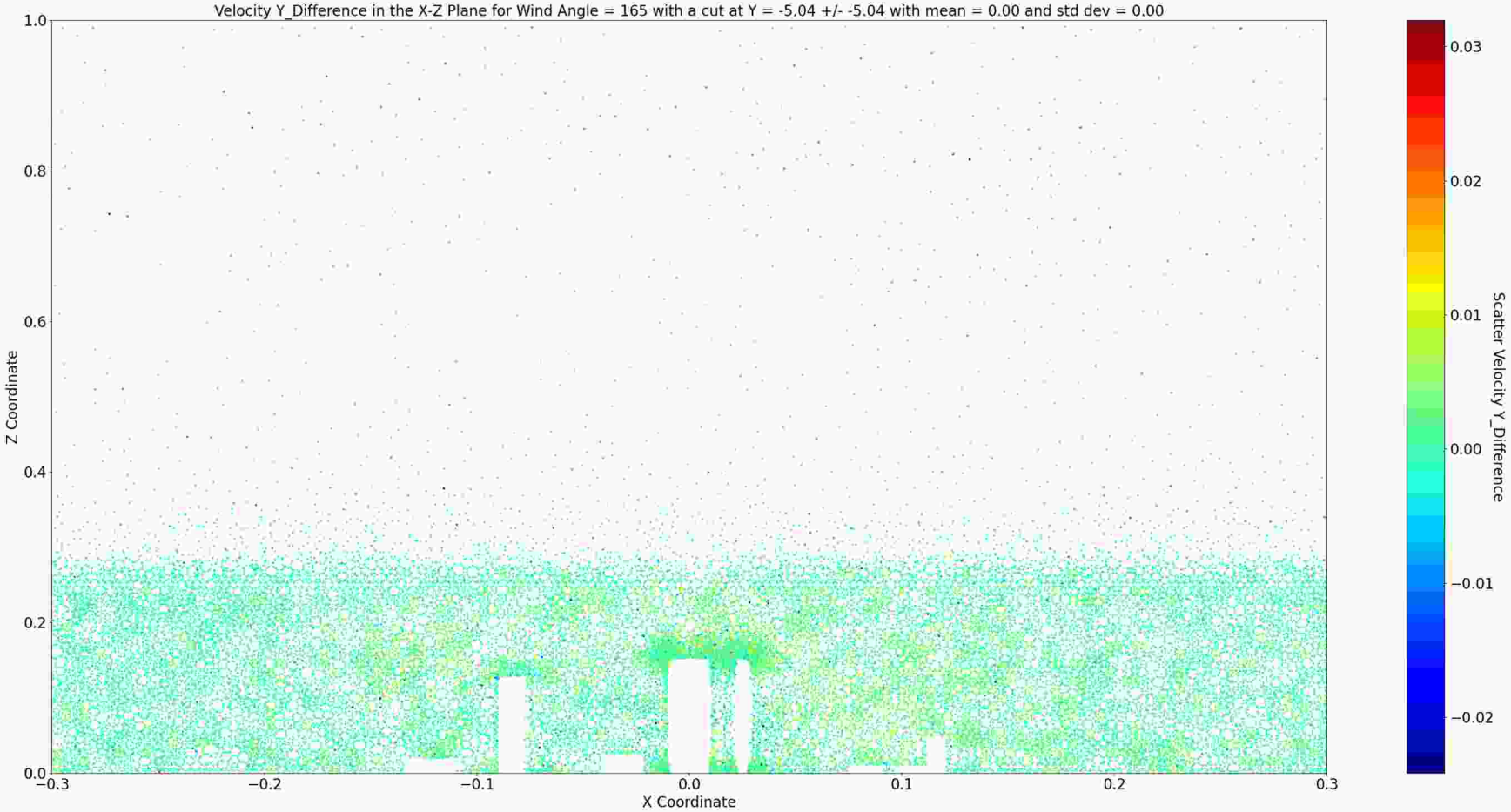

Velocity Y_Difference in the X-Z Plane for Wind Angle = 75 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.02
0.01
0.00
−0.01
−0.02

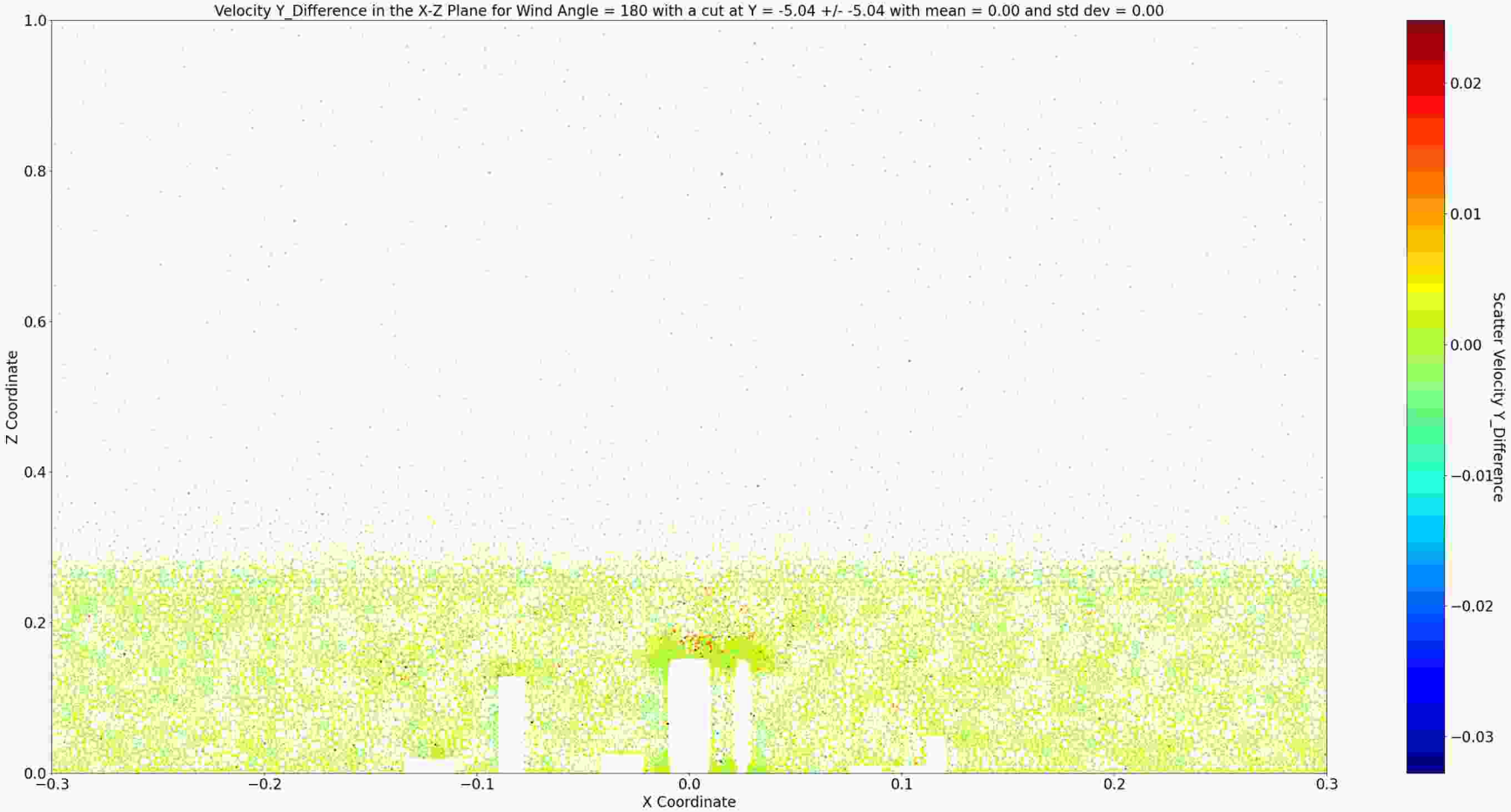

Velocity Y_Difference in the X-Z Plane for Wind Angle = 90 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.02
0.01
0.00
−0.01
−0.02


Velocity Y_Difference in the X-Z Plane for Wind Angle = 105 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.02
0.01
0.00
−0.01
−0.02

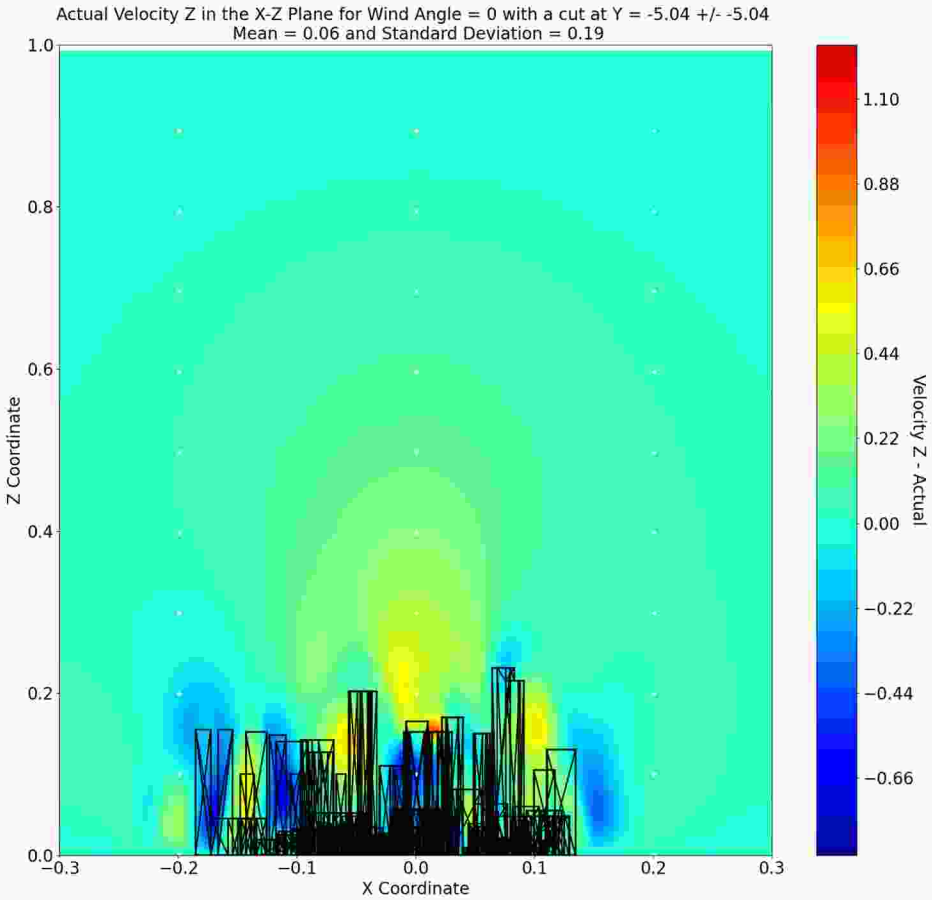

Velocity Y_Difference in the X-Z Plane for Wind Angle = 120 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.025
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015

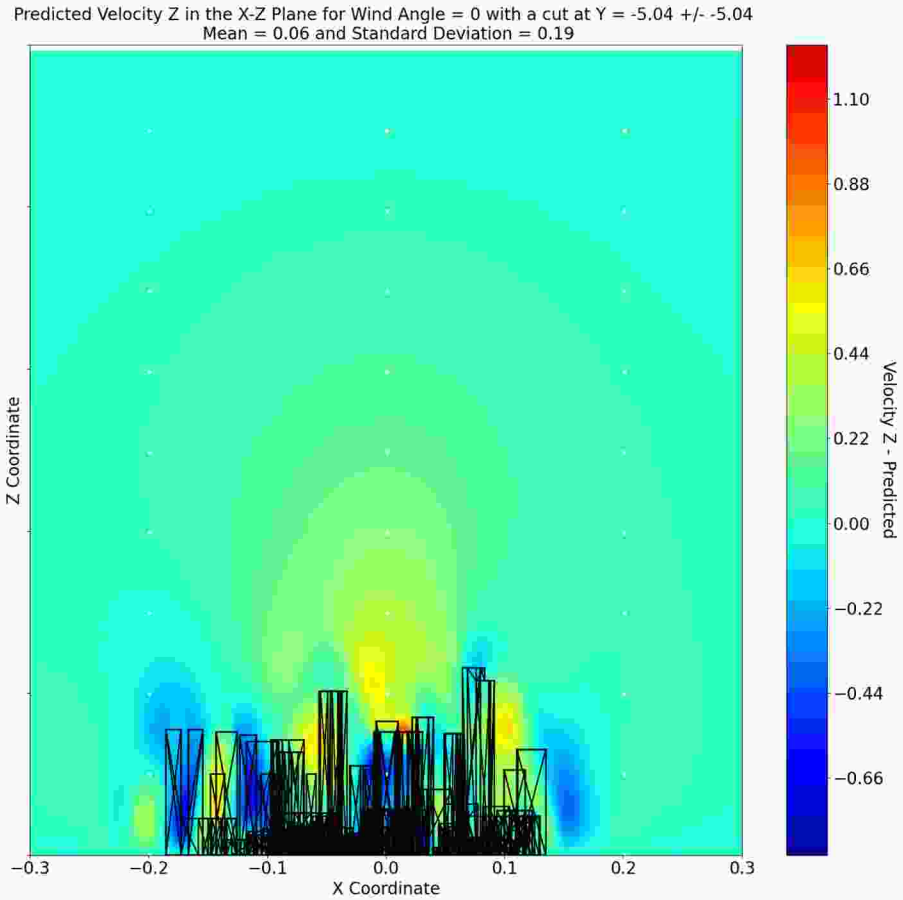

Velocity Y_Difference in the X-Z Plane for Wind Angle = 150 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.02
0.01
0.00
−0.01
−0.02


Velocity Y_Difference in the X-Z Plane for Wind Angle = 165 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.03
0.02
0.01
0.00
−0.01
−0.02

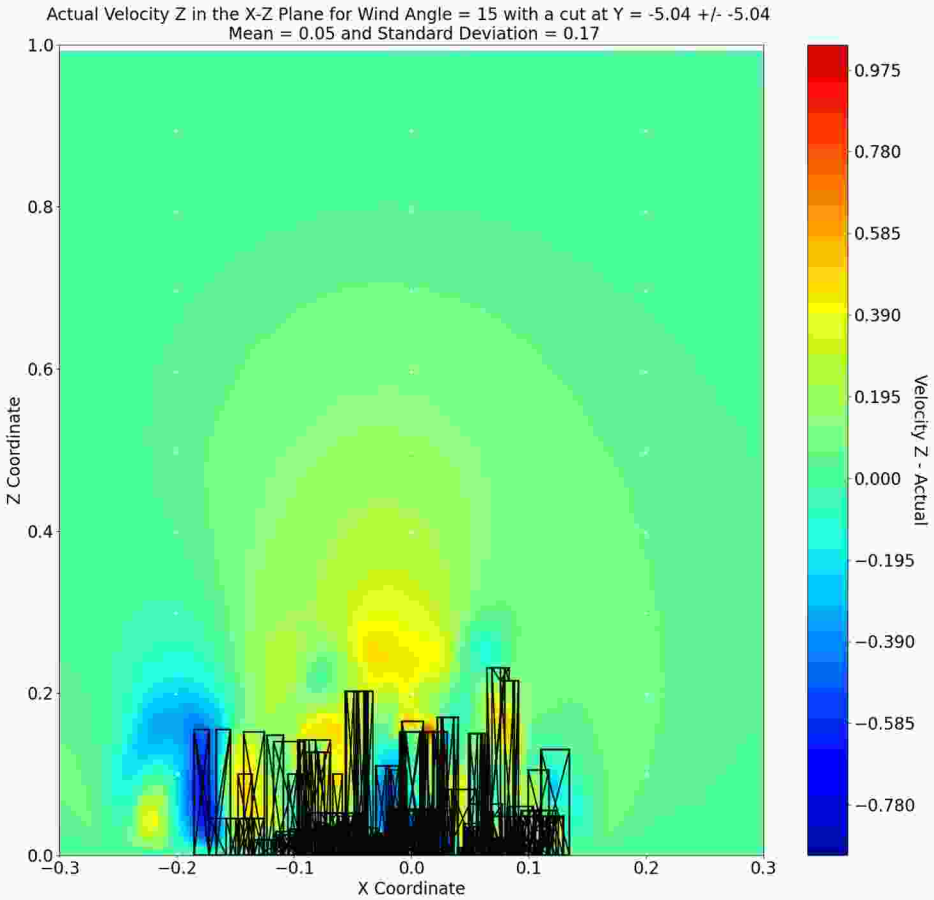

Velocity Y_Difference in the X-Z Plane for Wind Angle = 180 with a cut at Y = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.02
0.01
0.00
−0.01
−0.02
−0.03

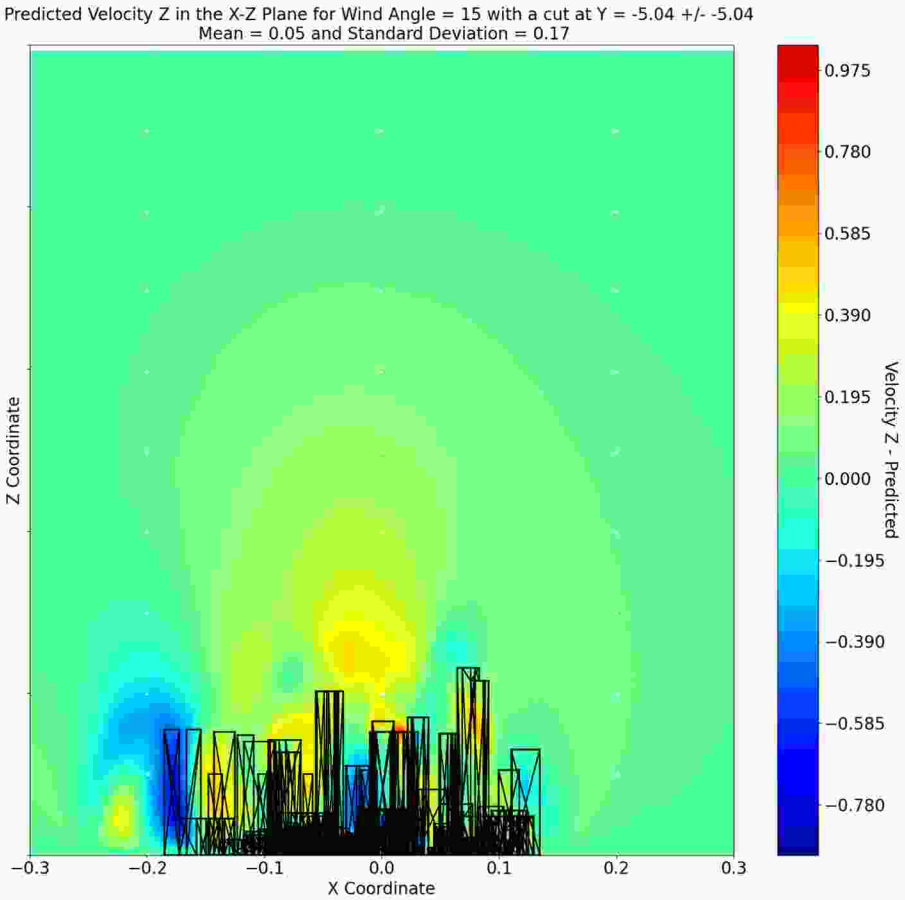
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



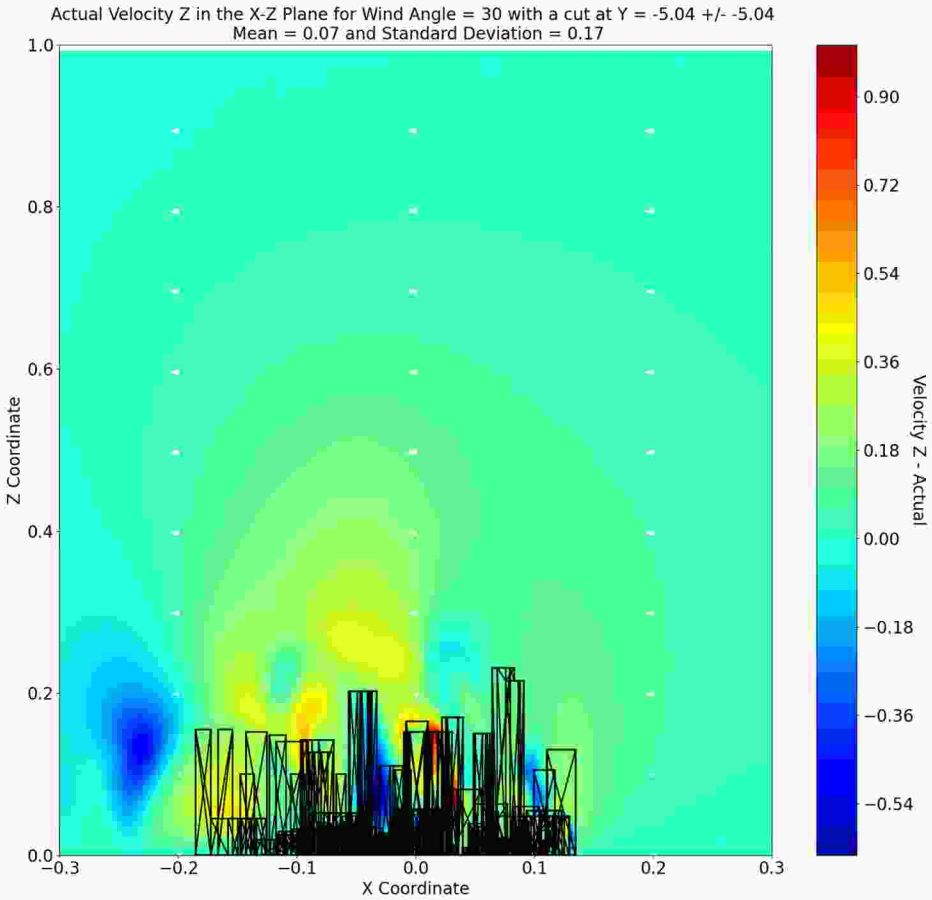


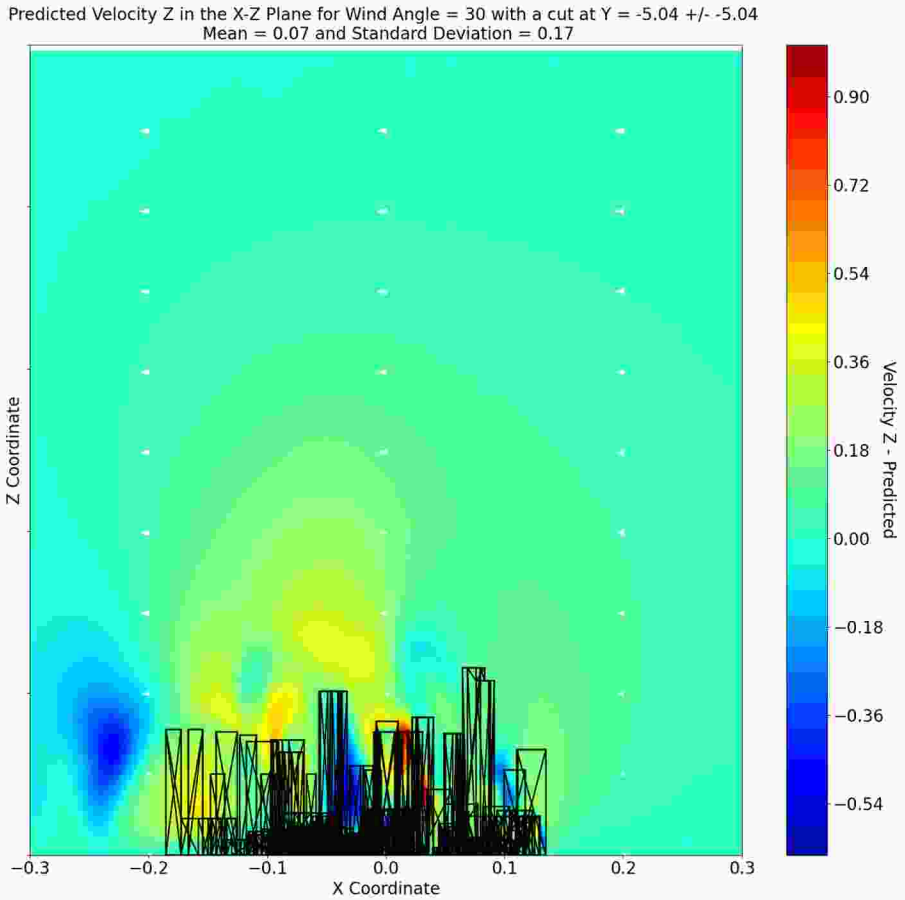
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



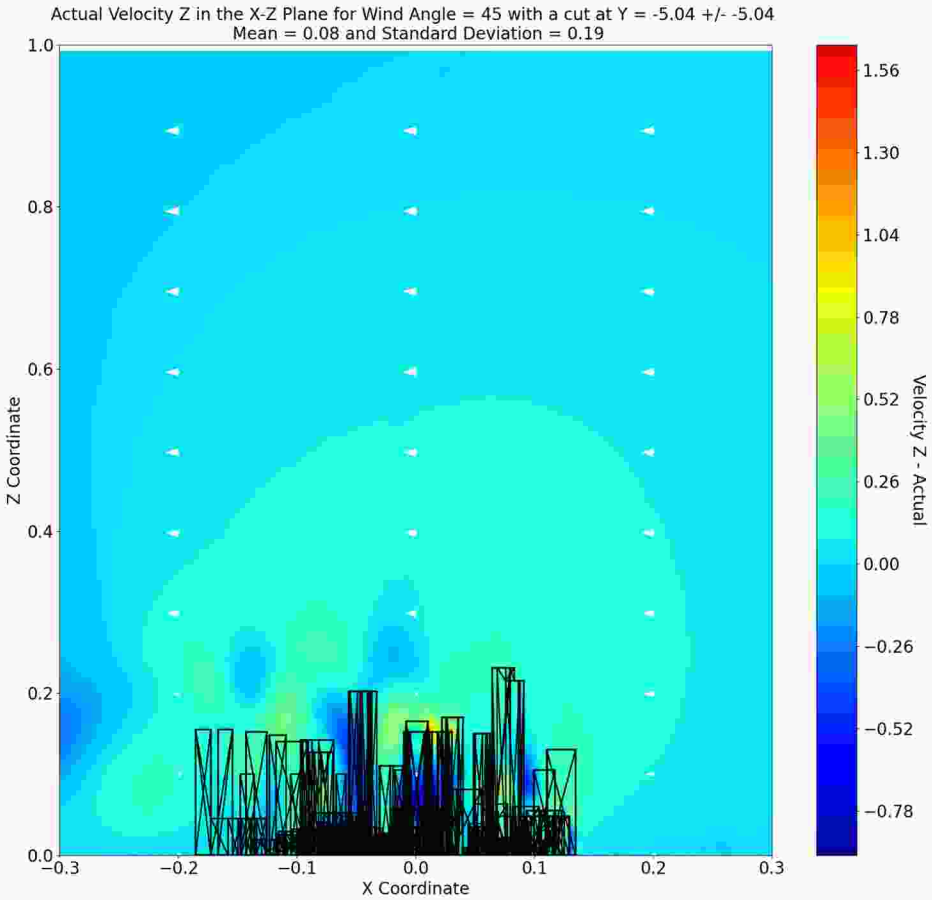


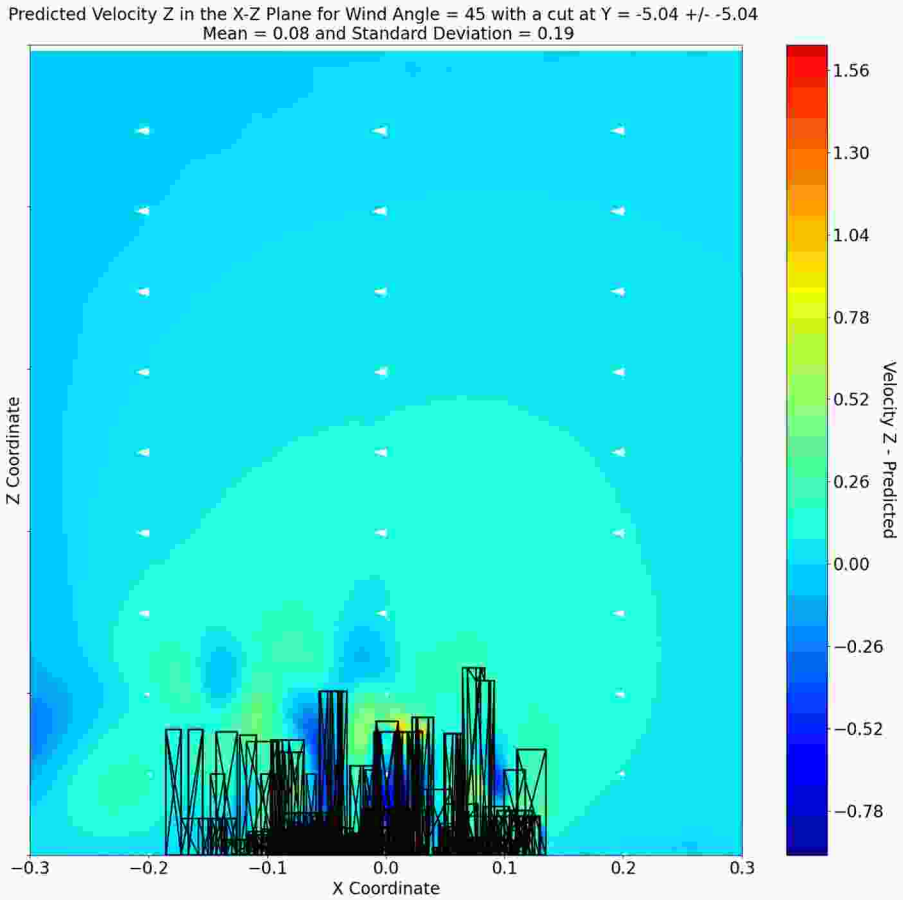
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



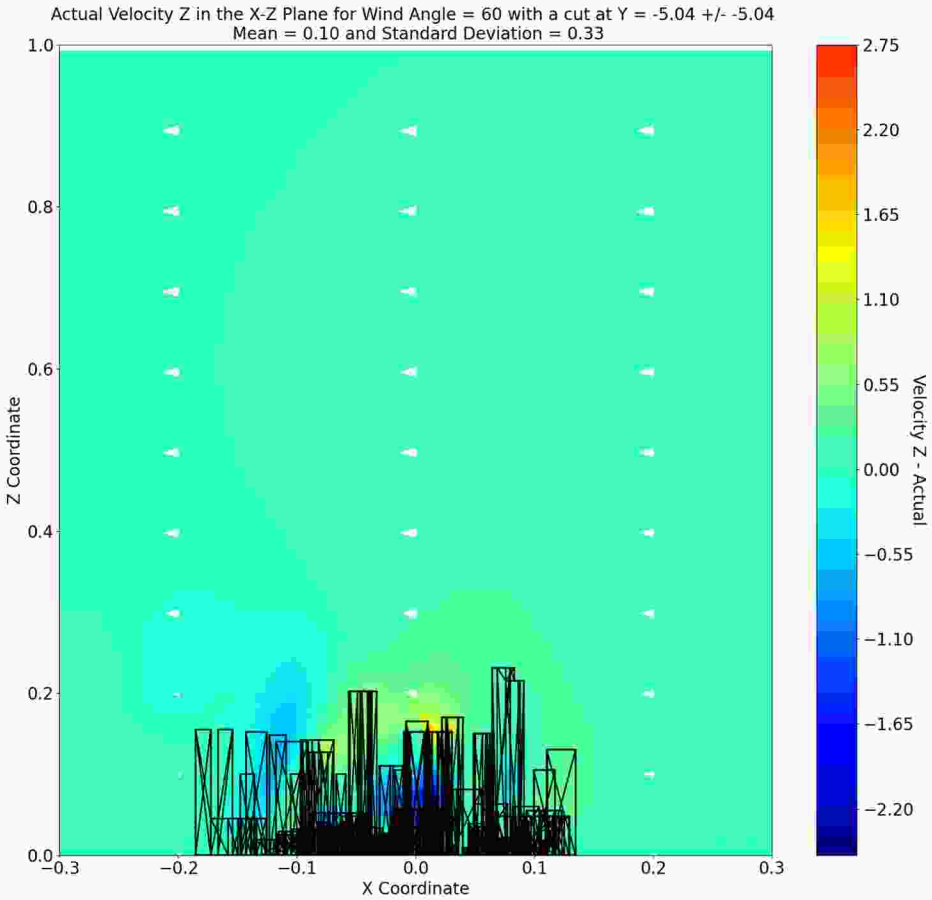


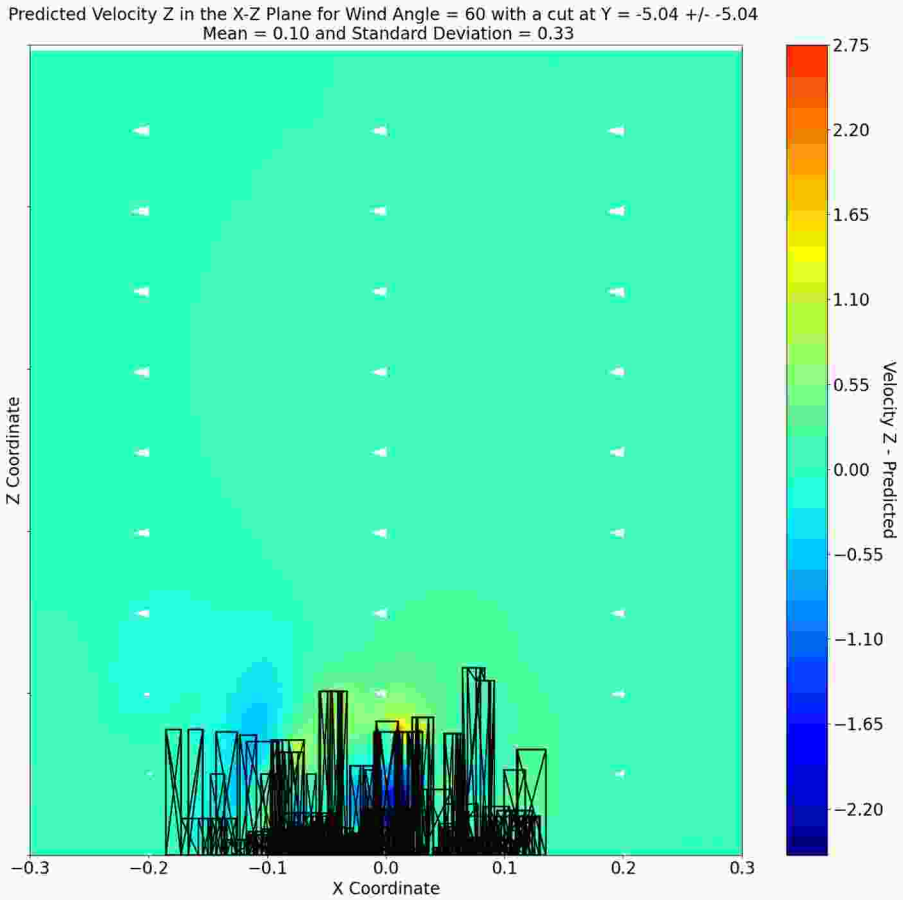
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



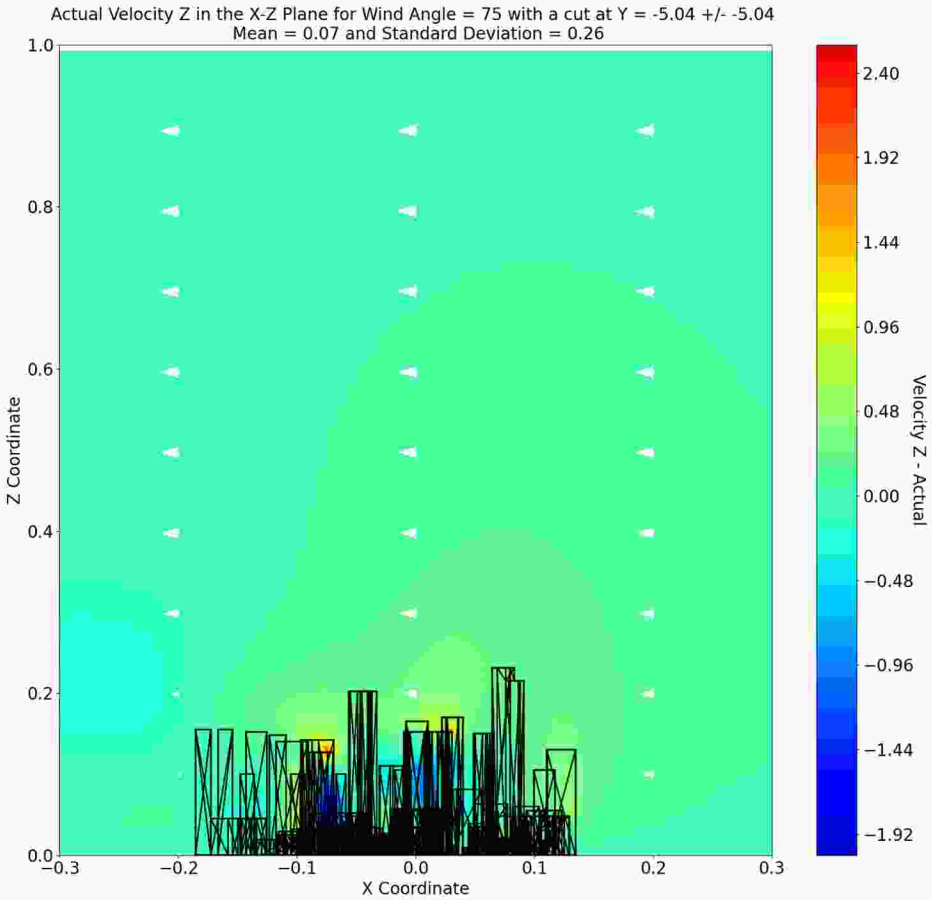


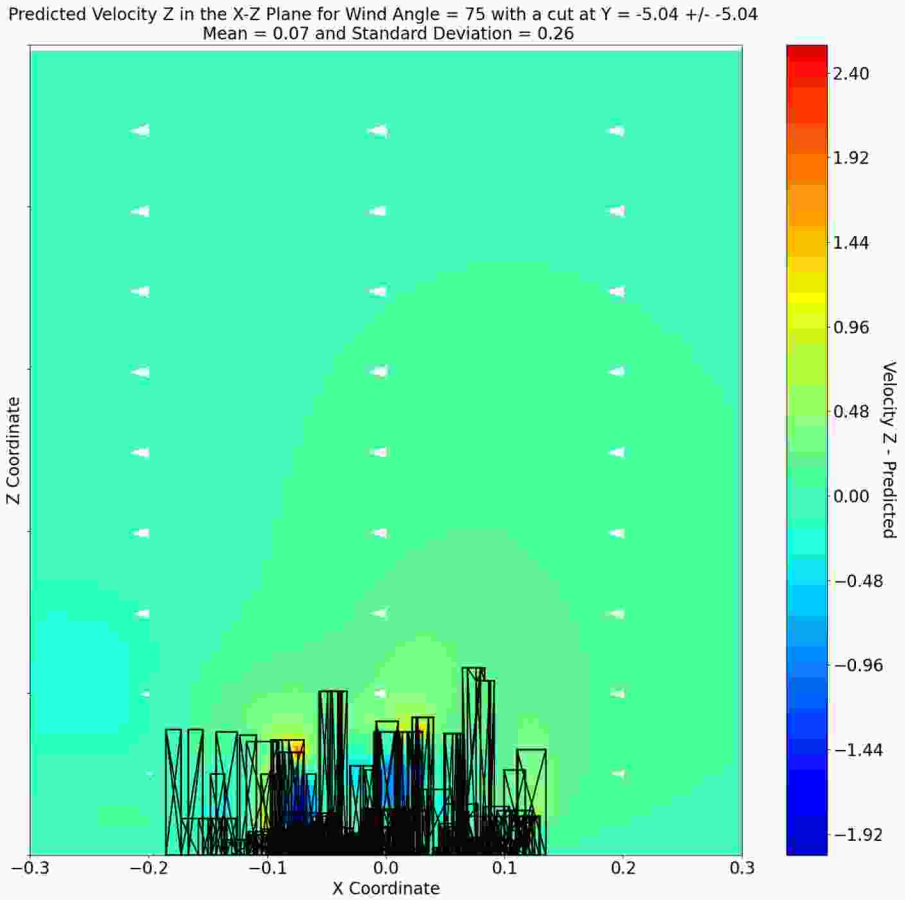
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



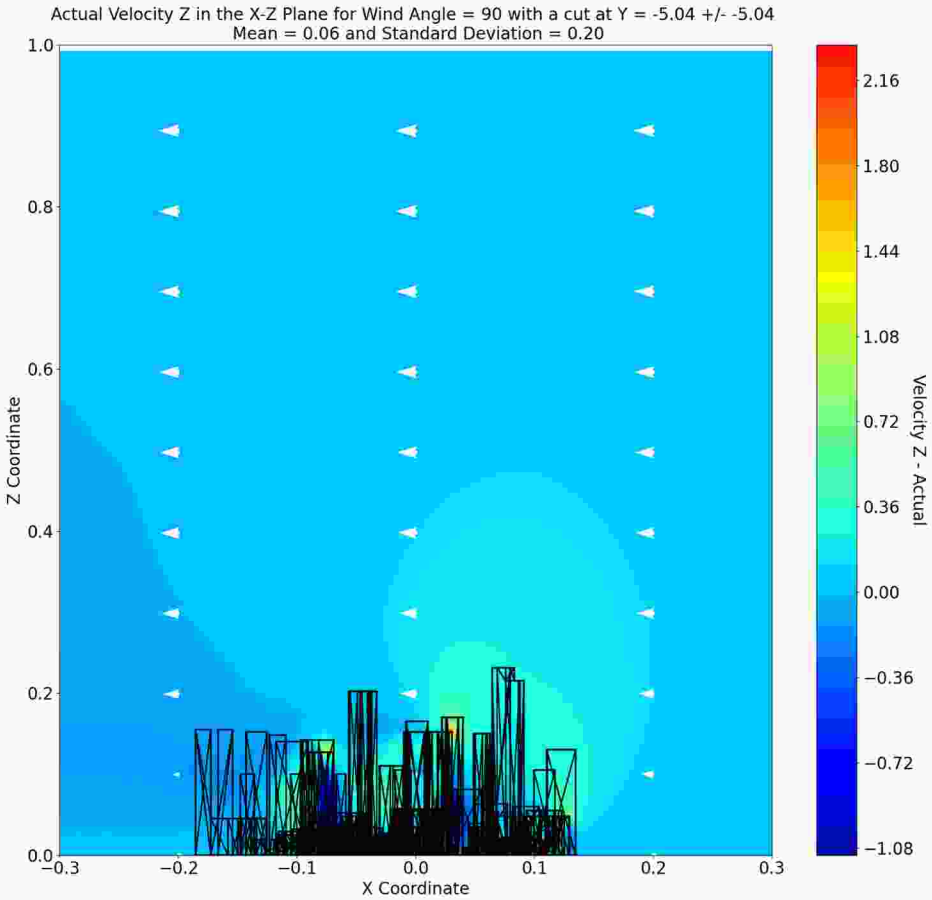


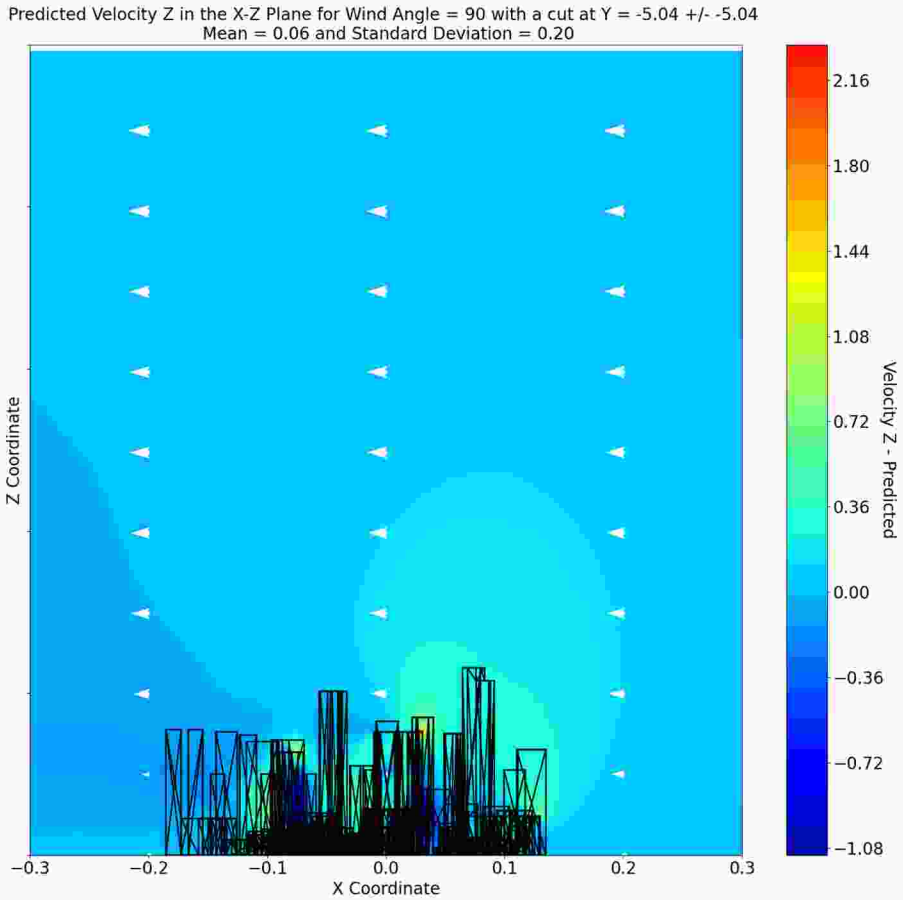
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



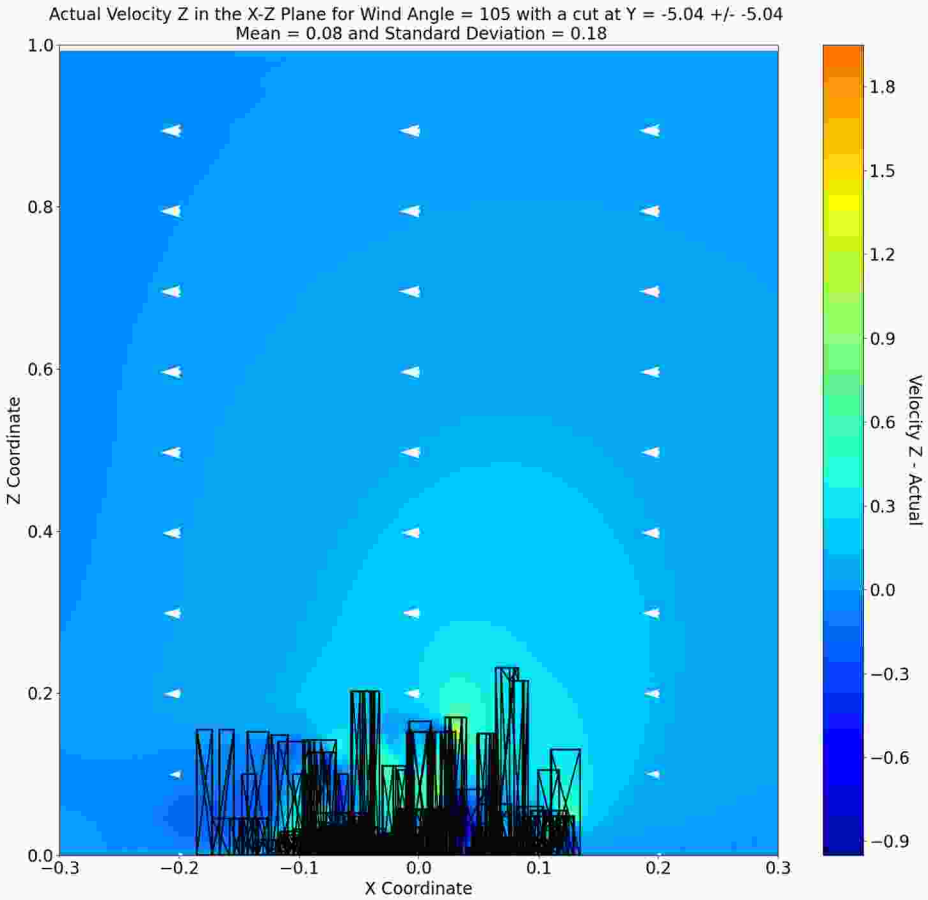


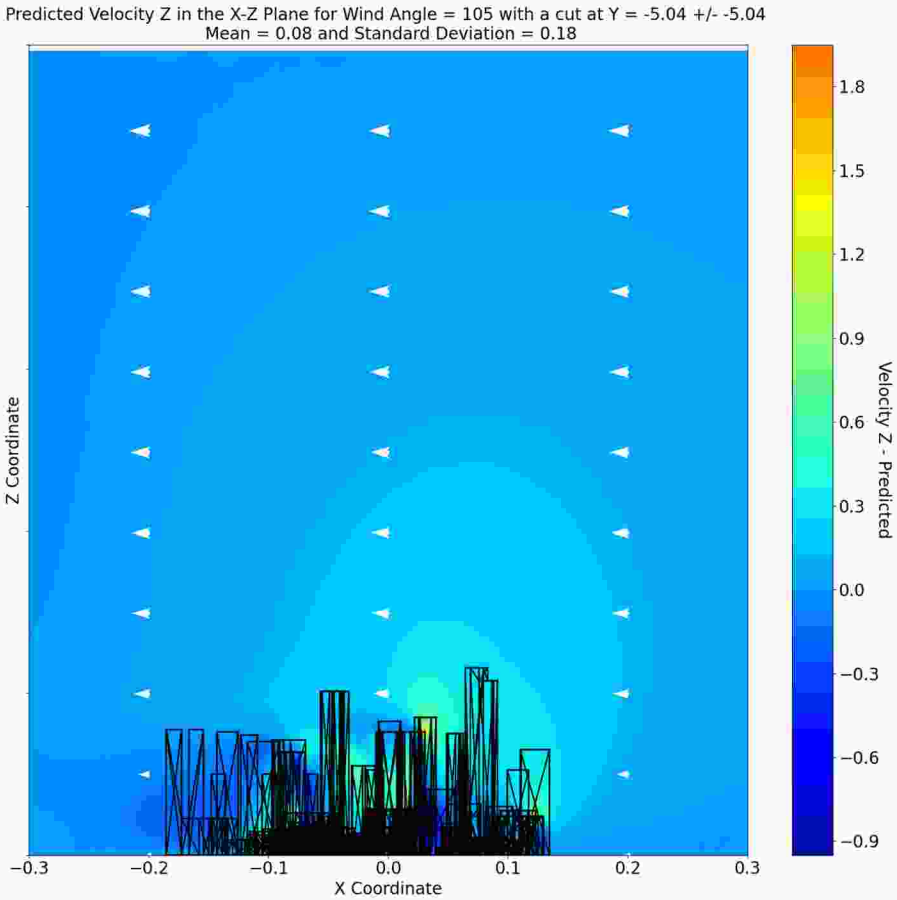
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



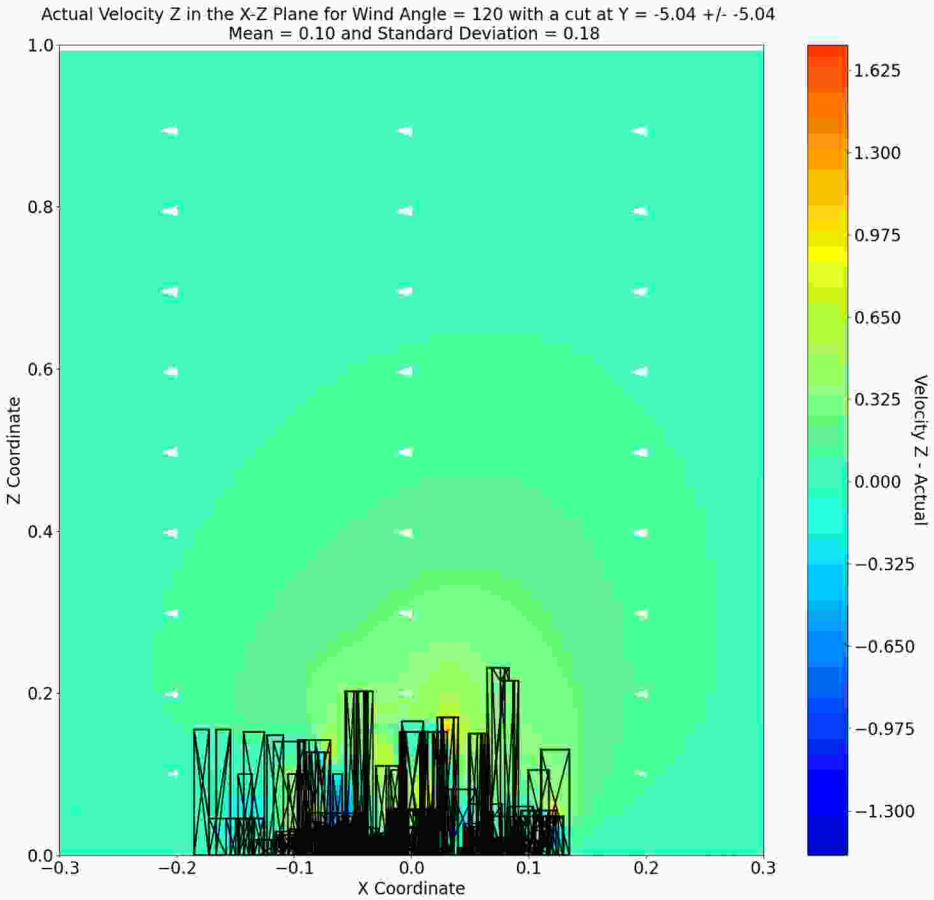


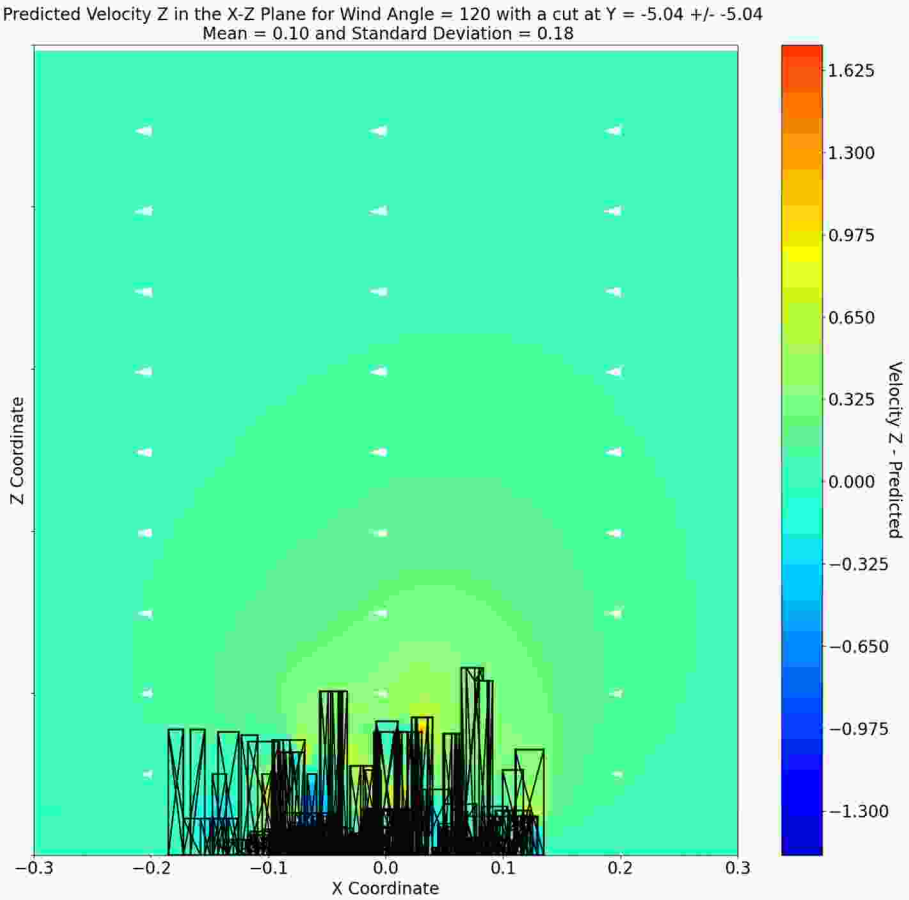
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



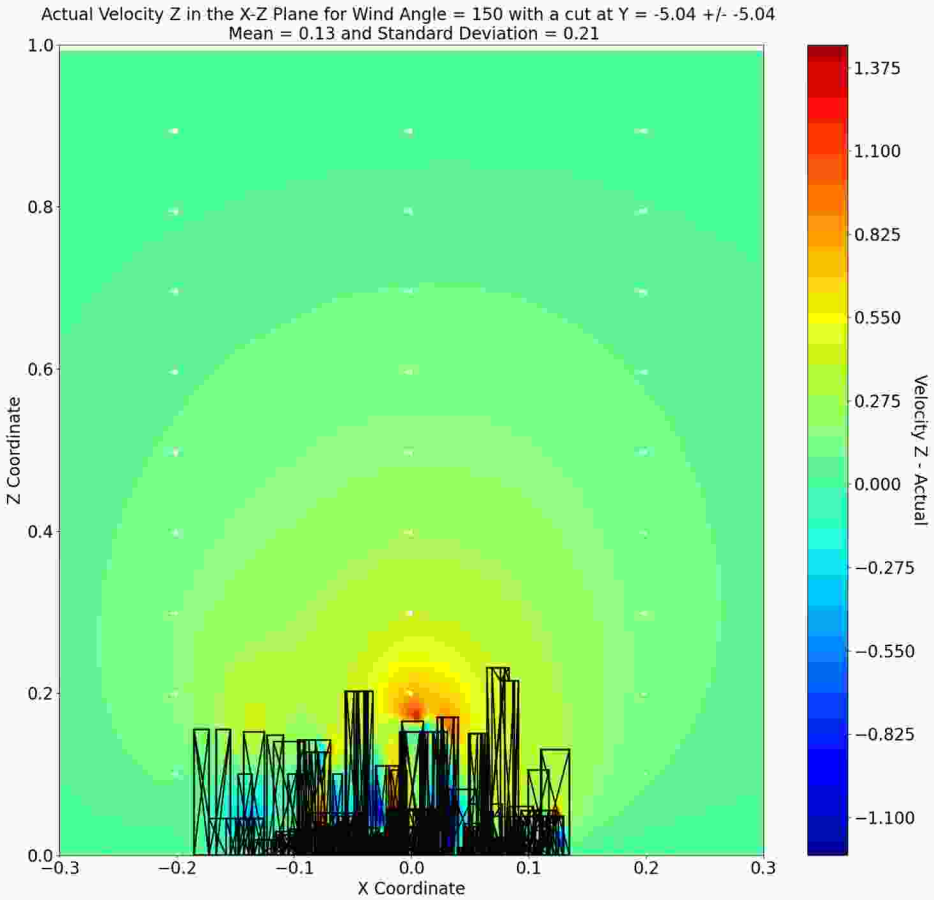


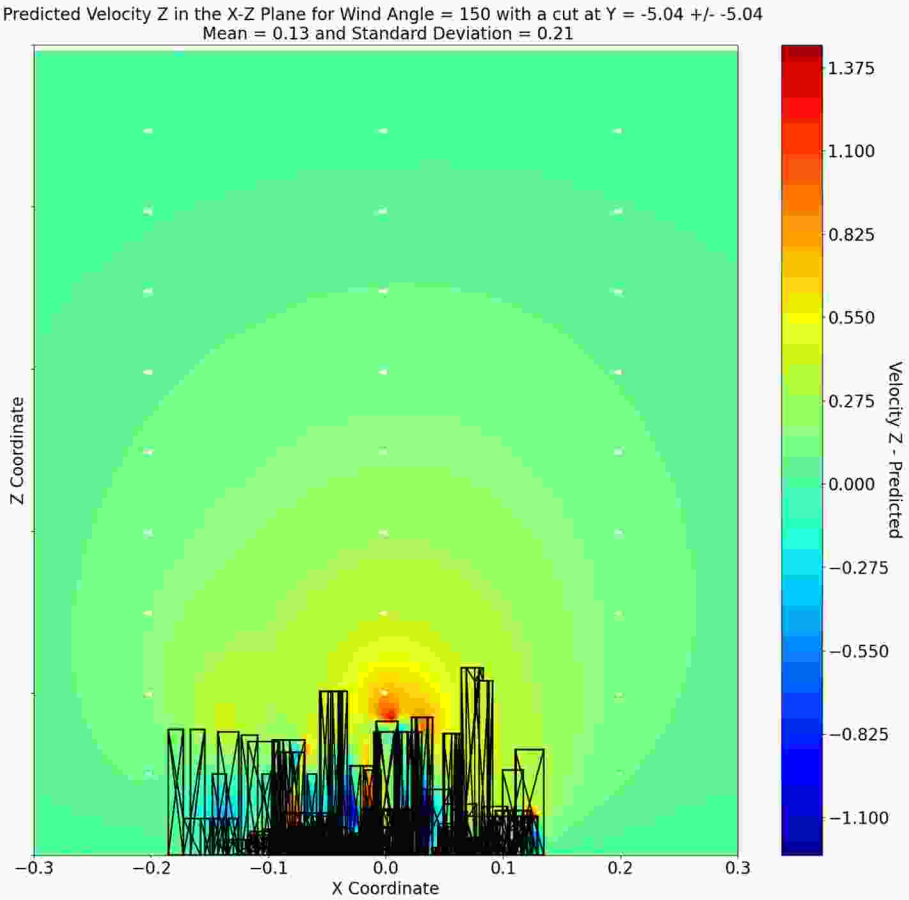
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



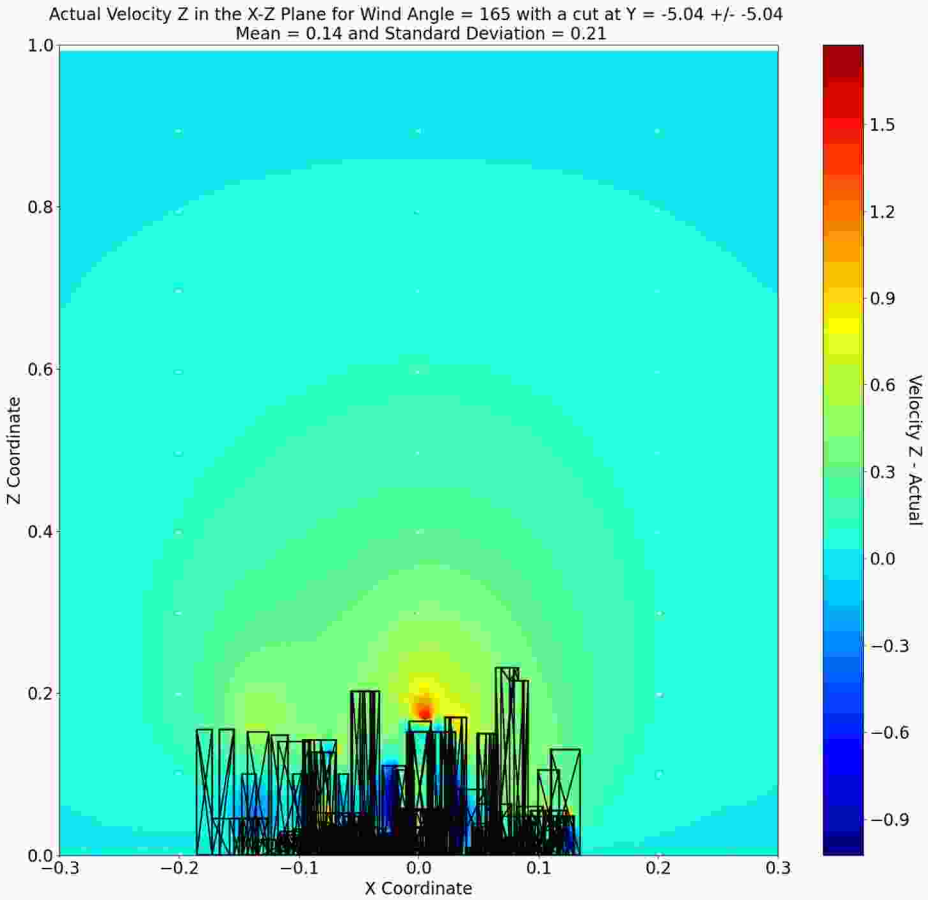


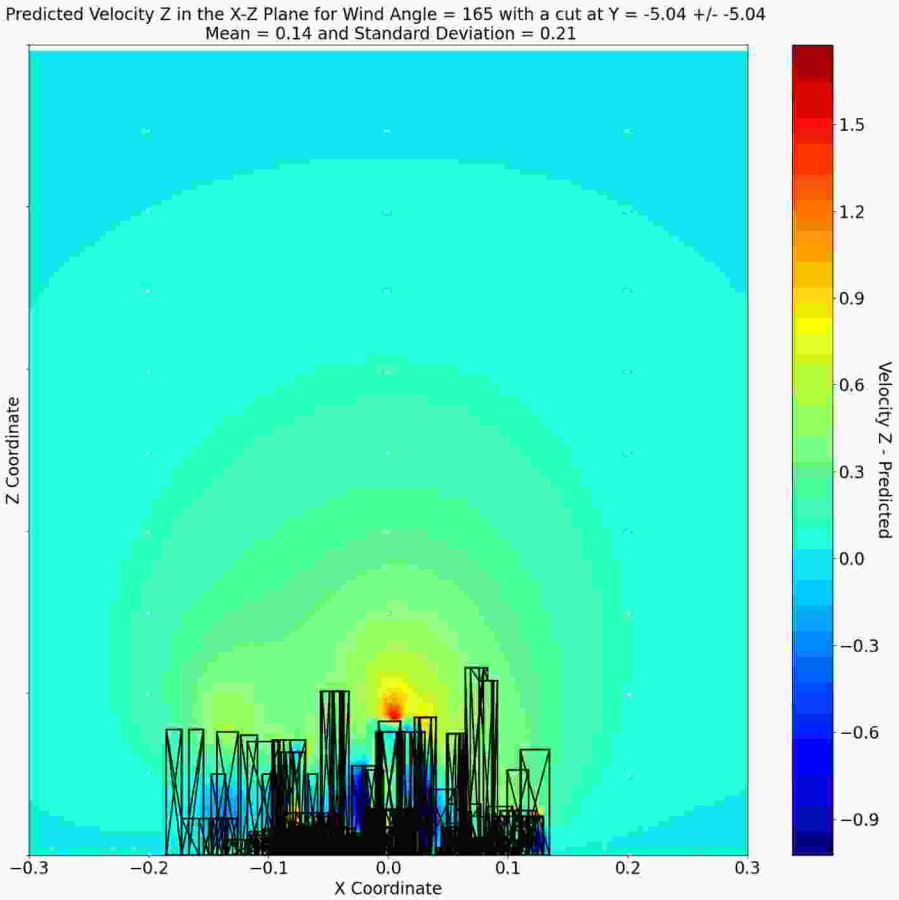
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



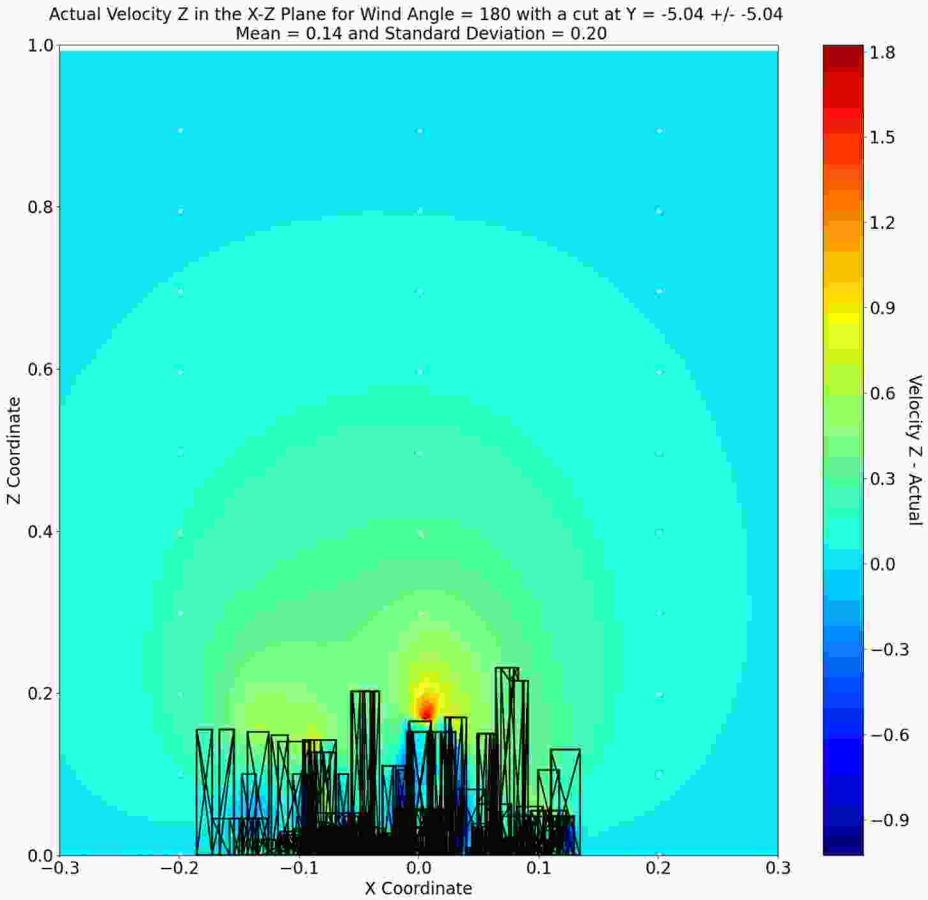


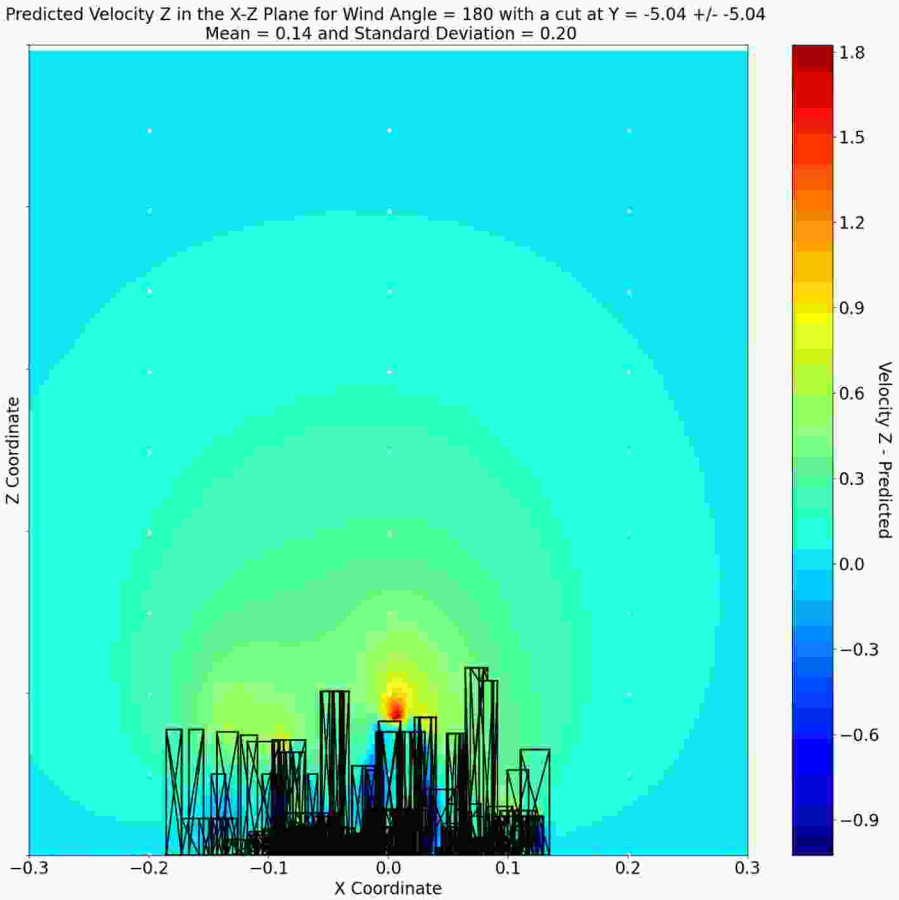
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



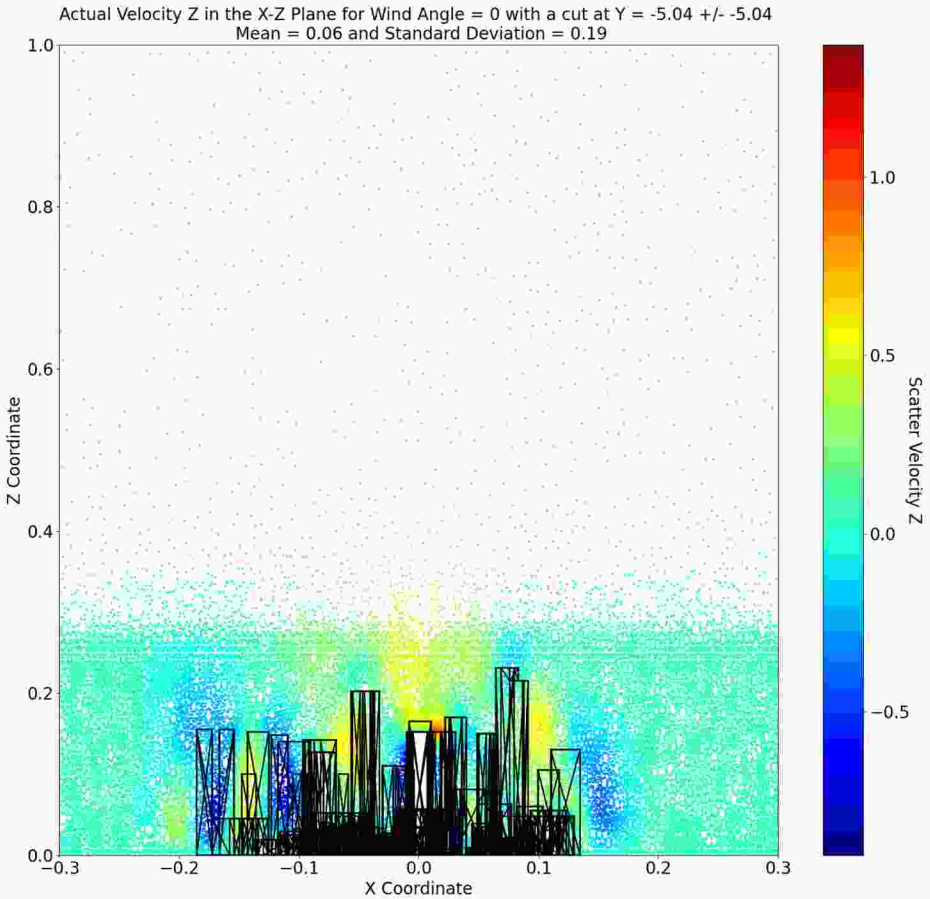


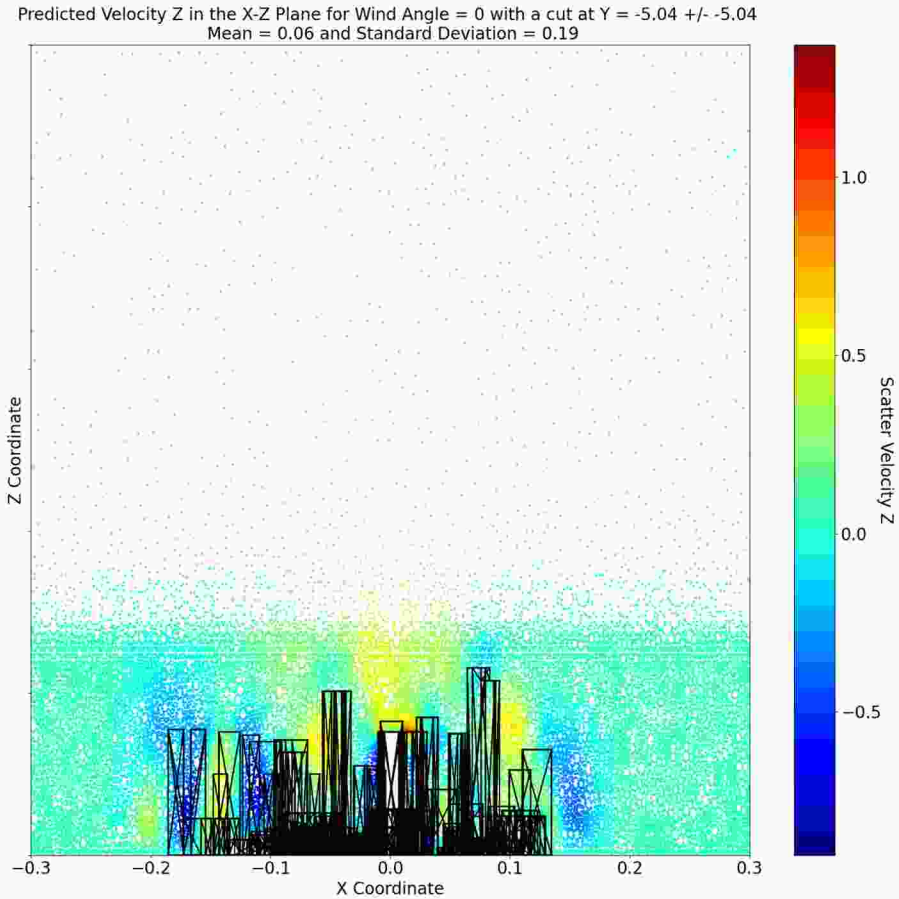
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



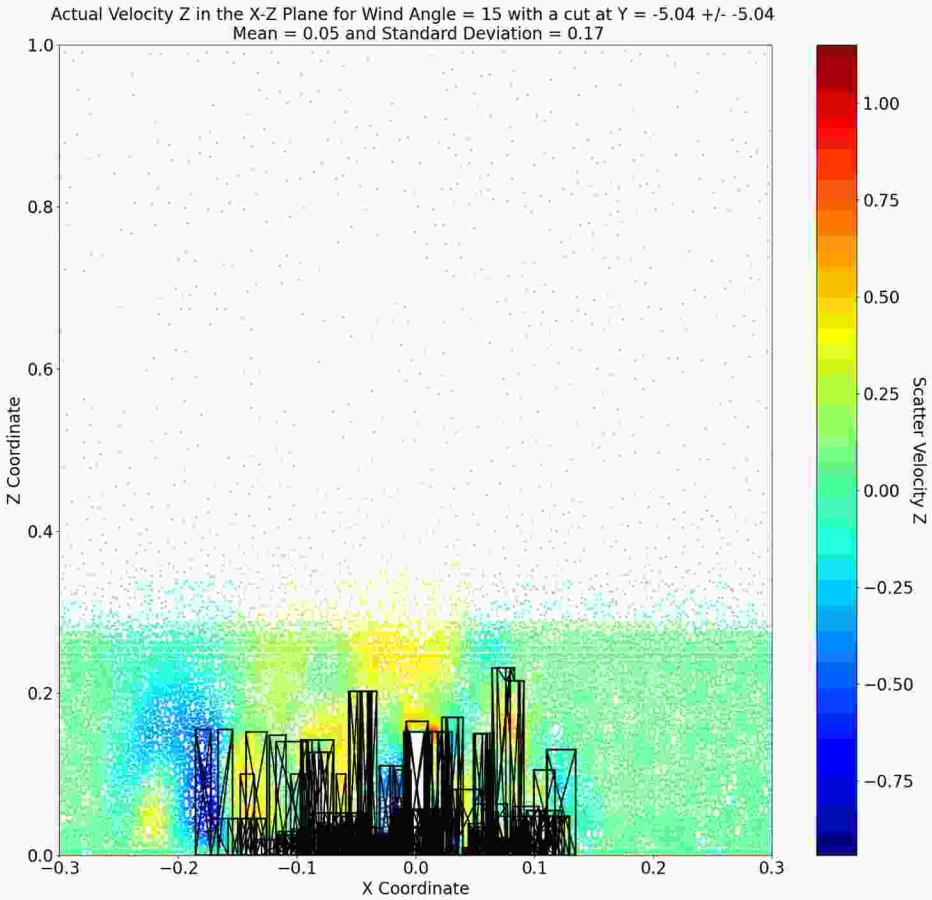


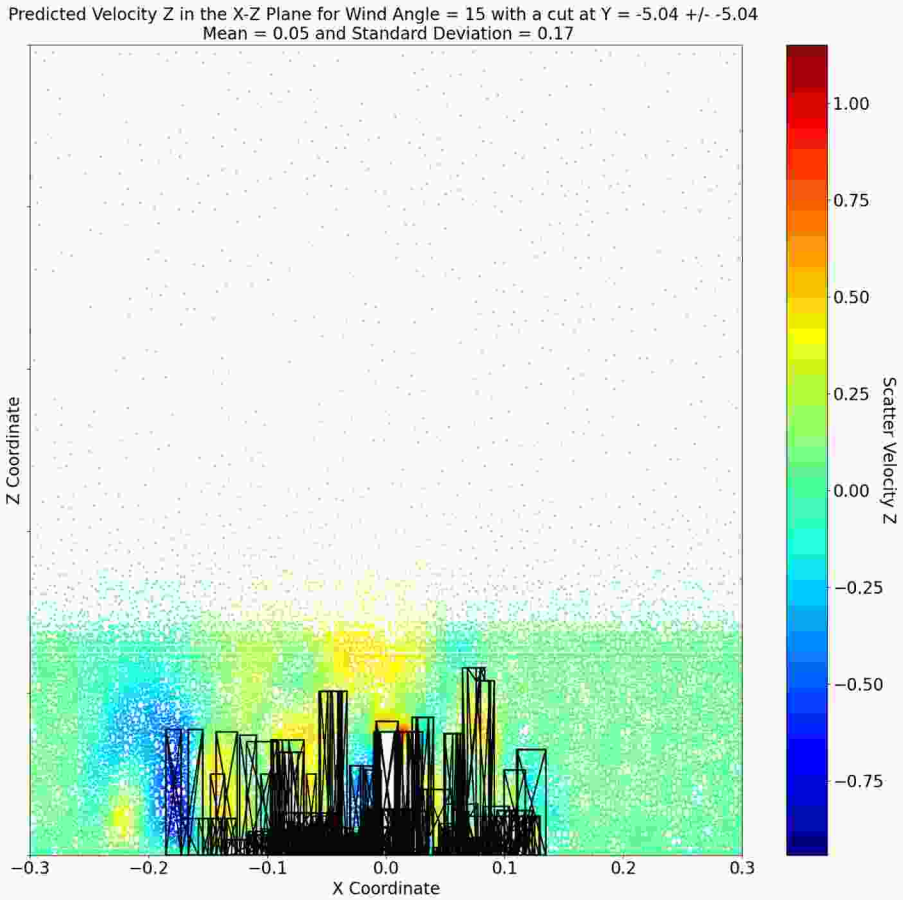
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



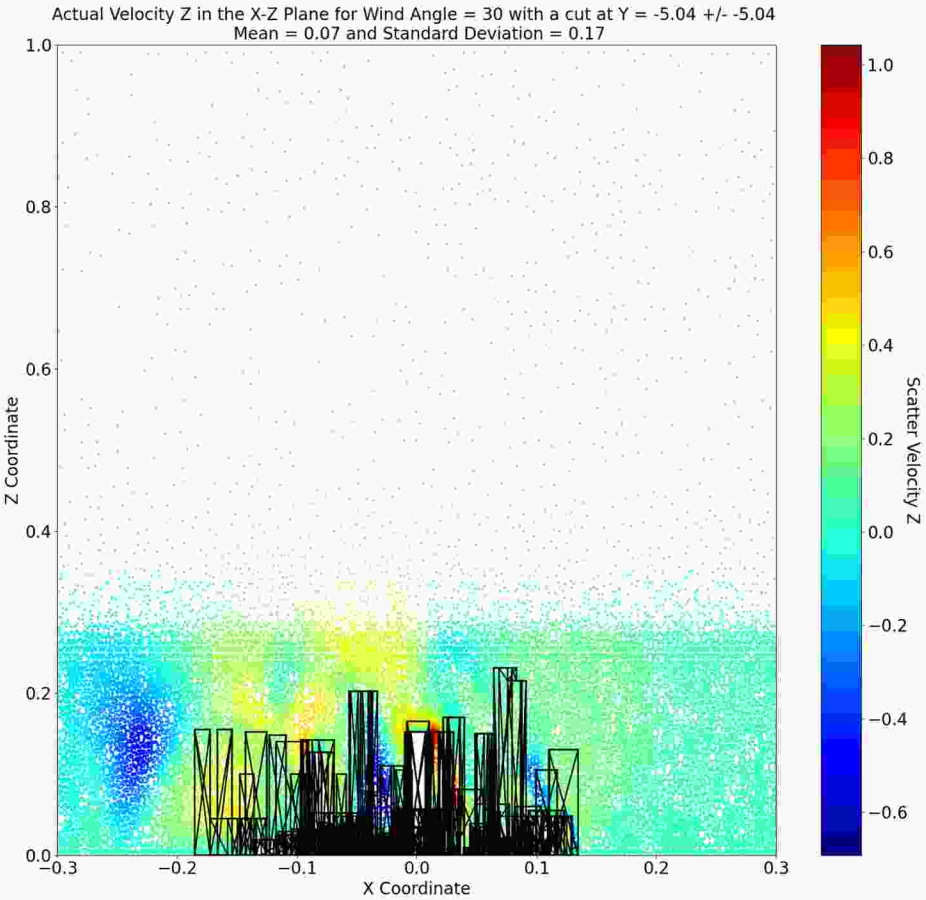


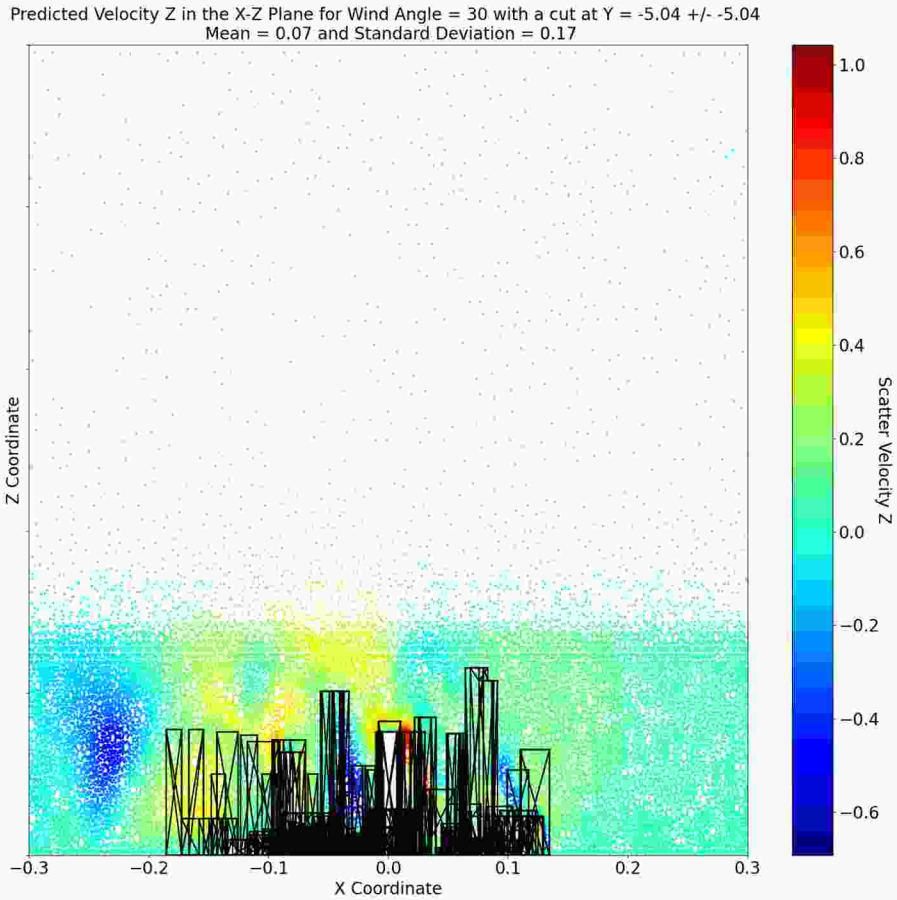
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



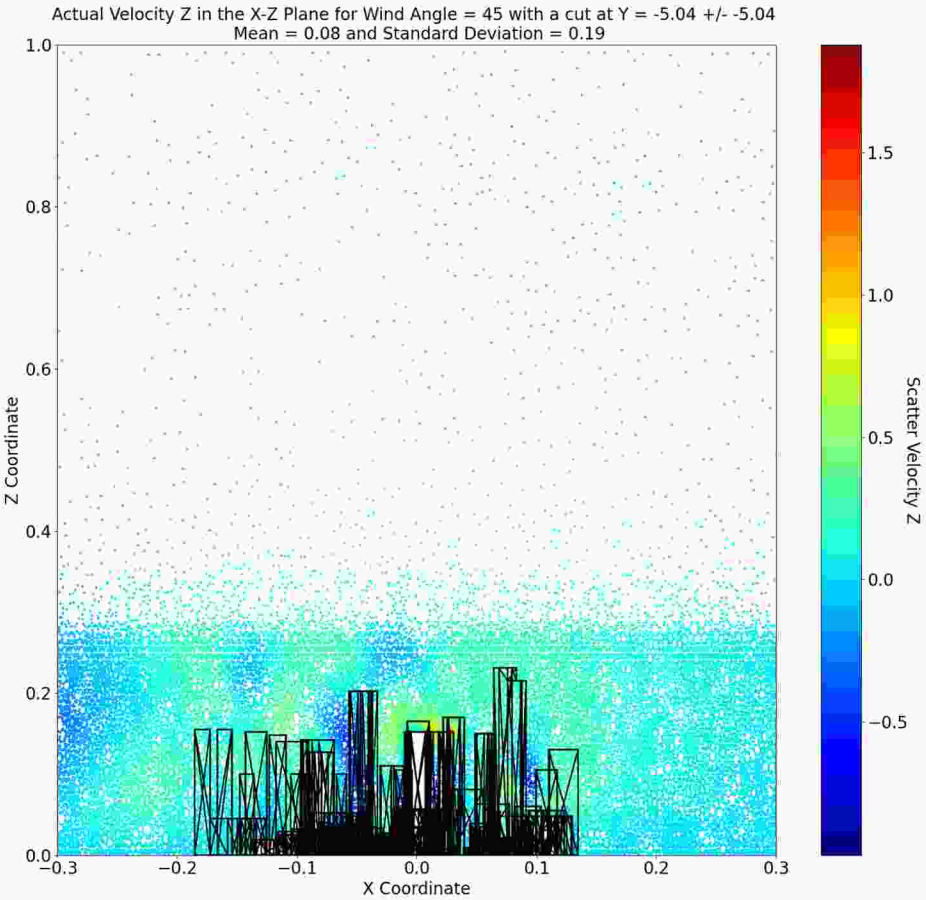


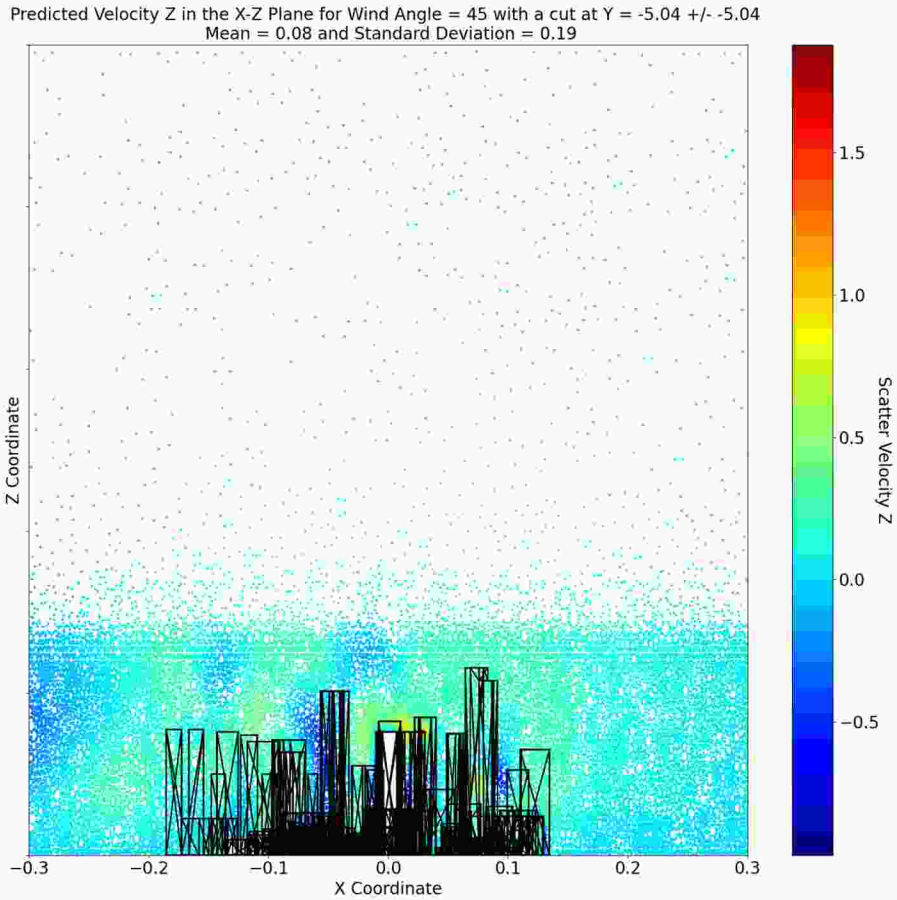
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



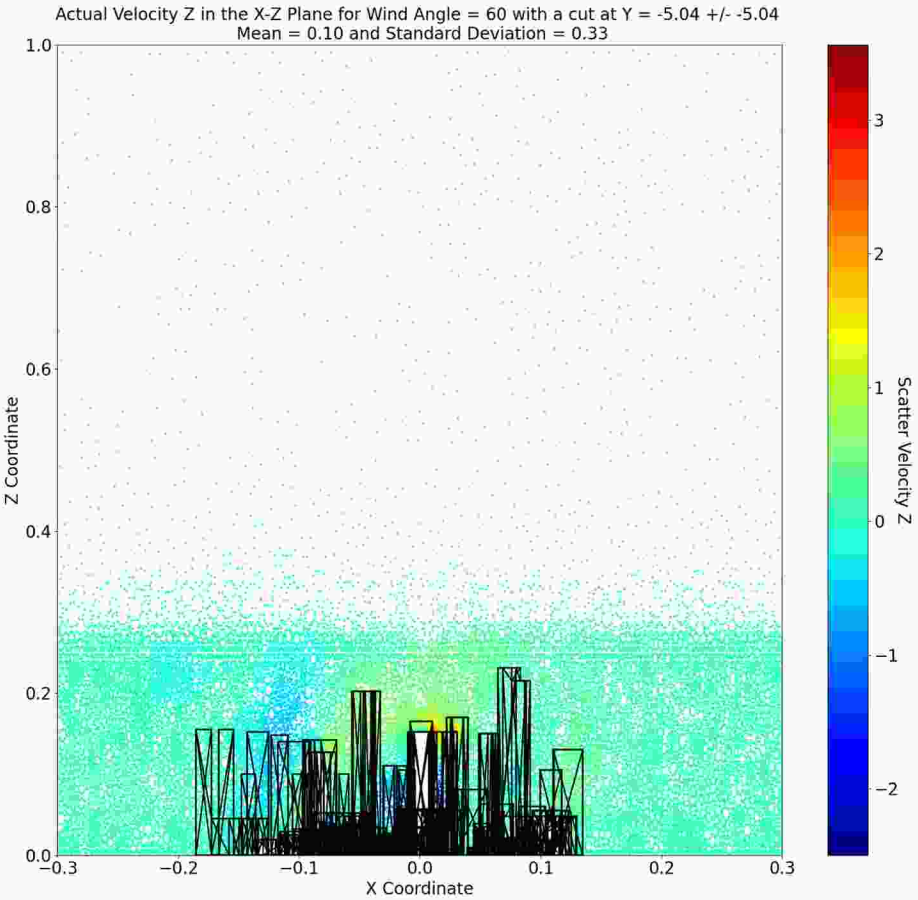


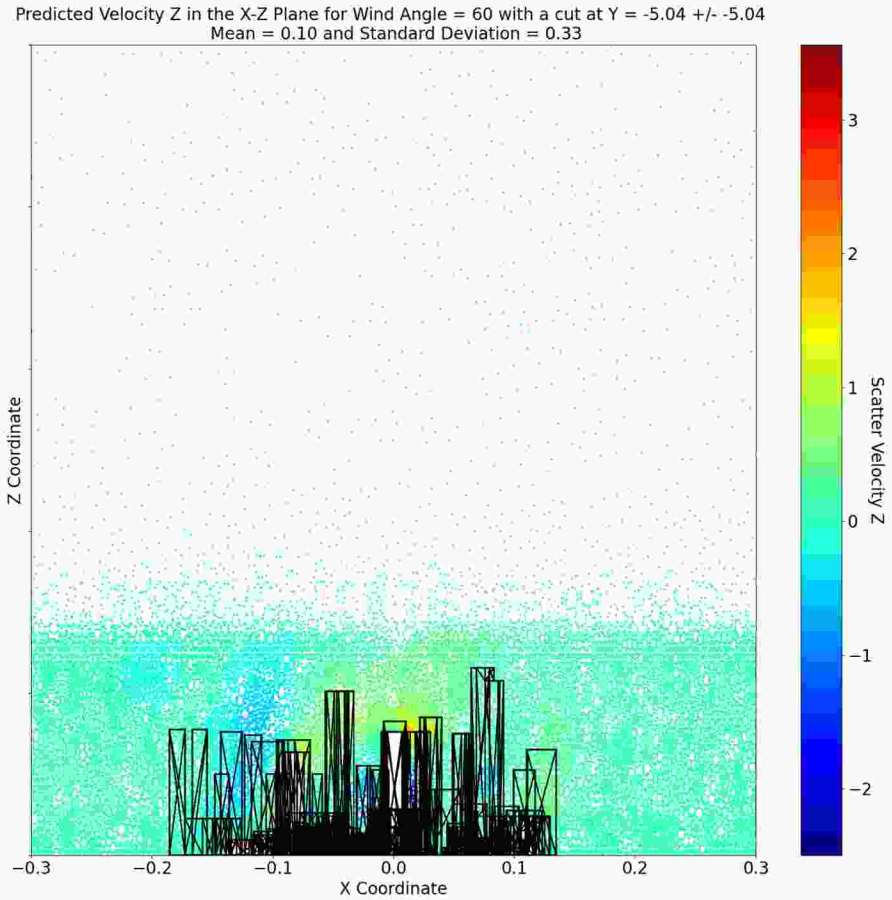
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



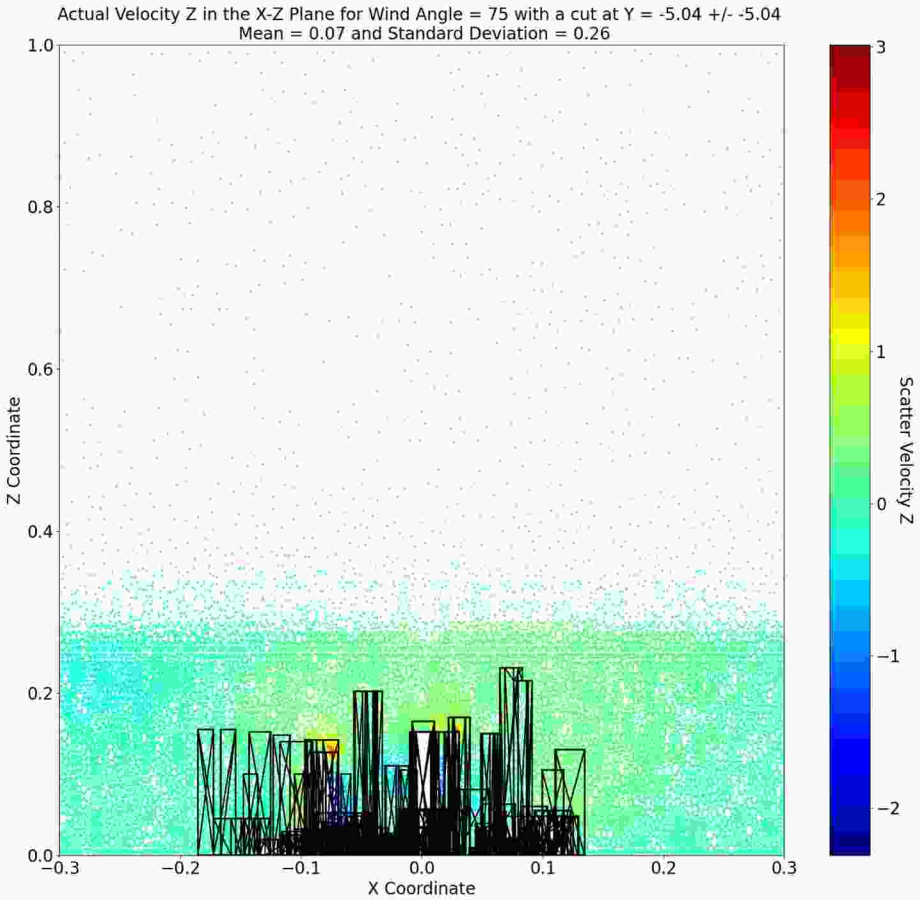


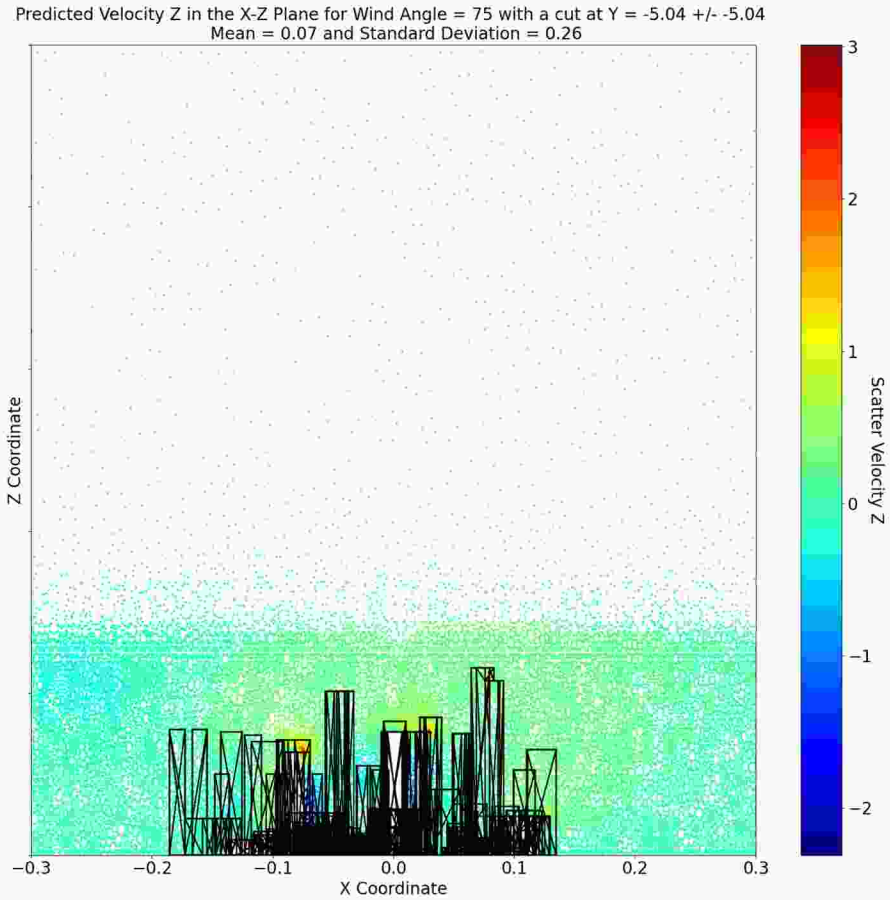
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



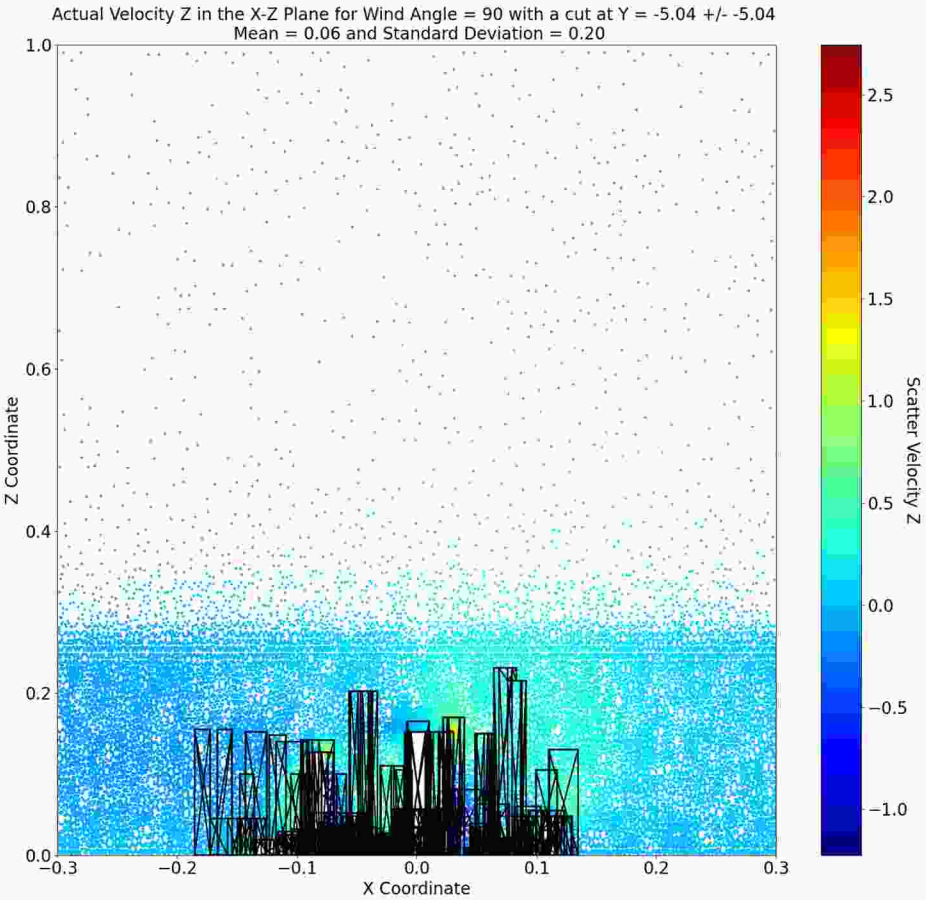


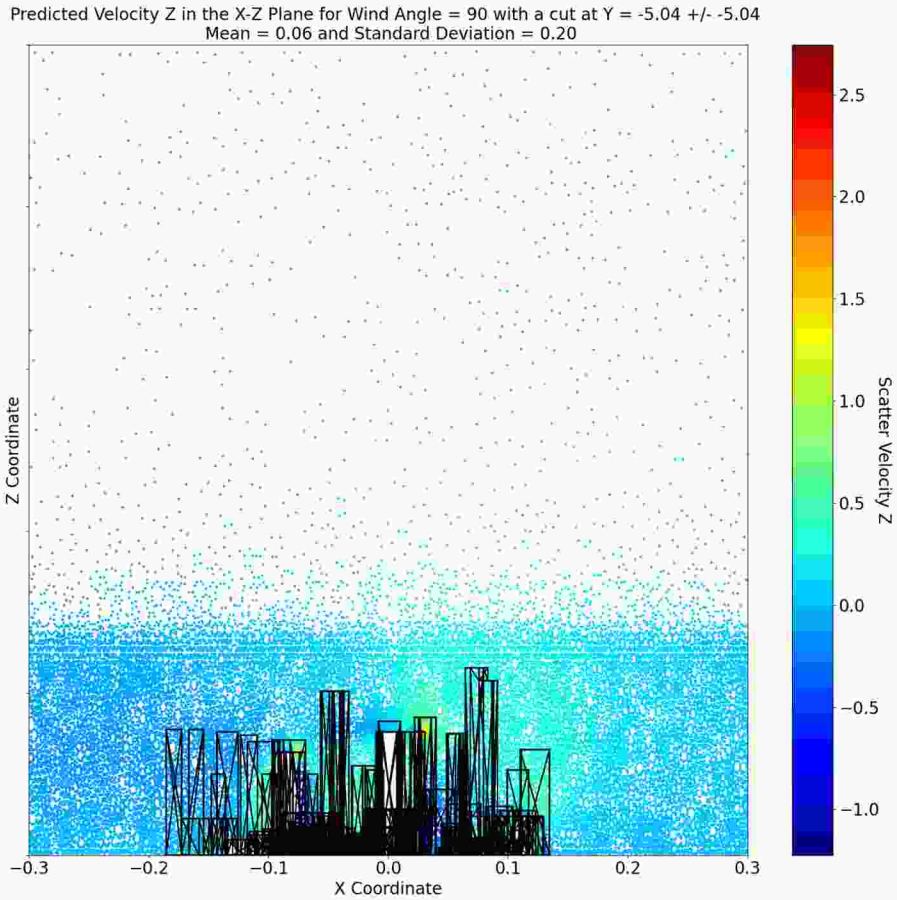
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



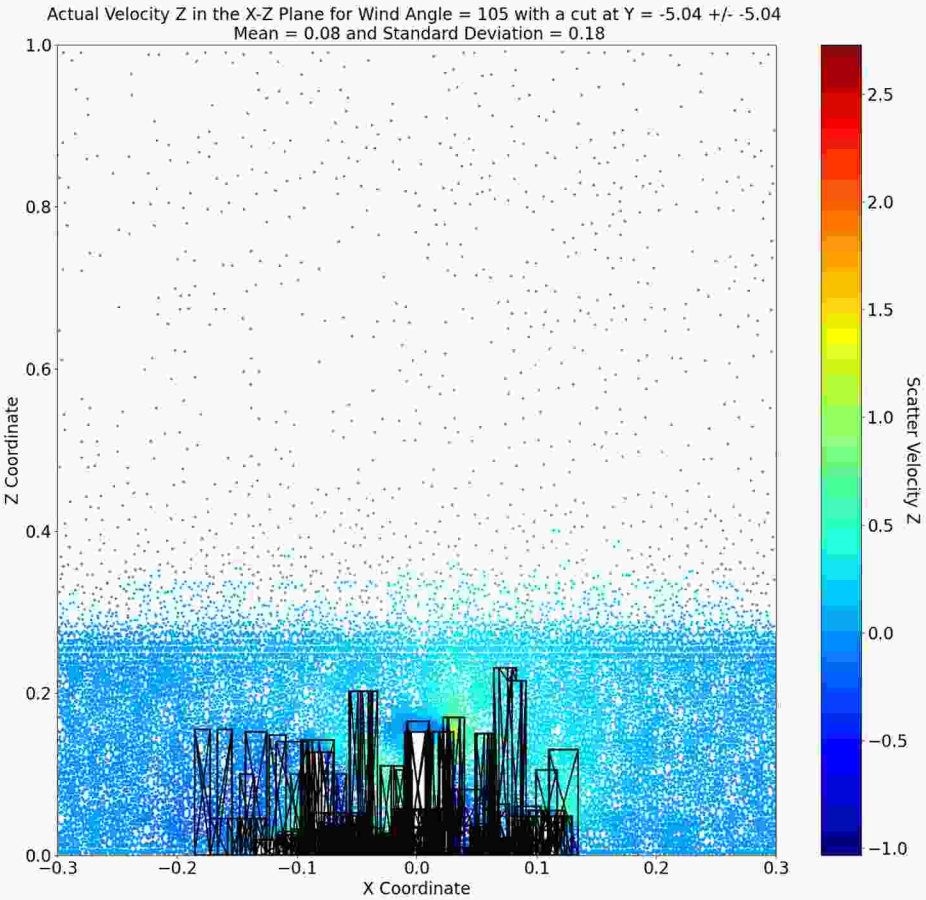


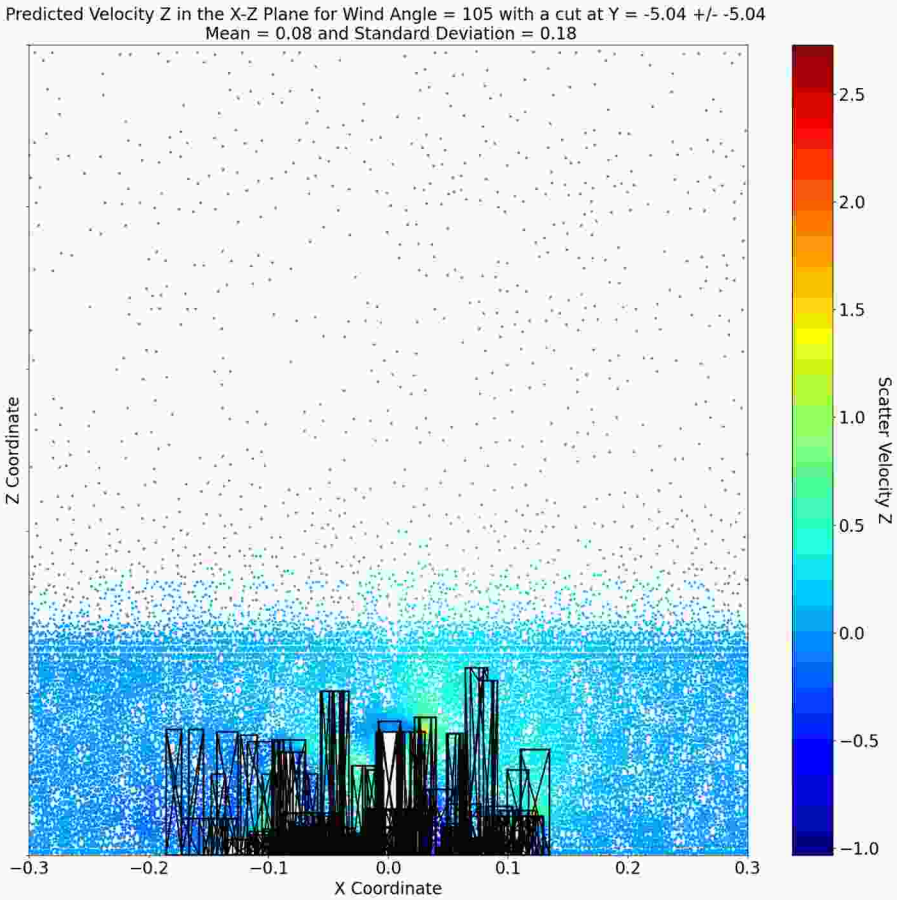
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



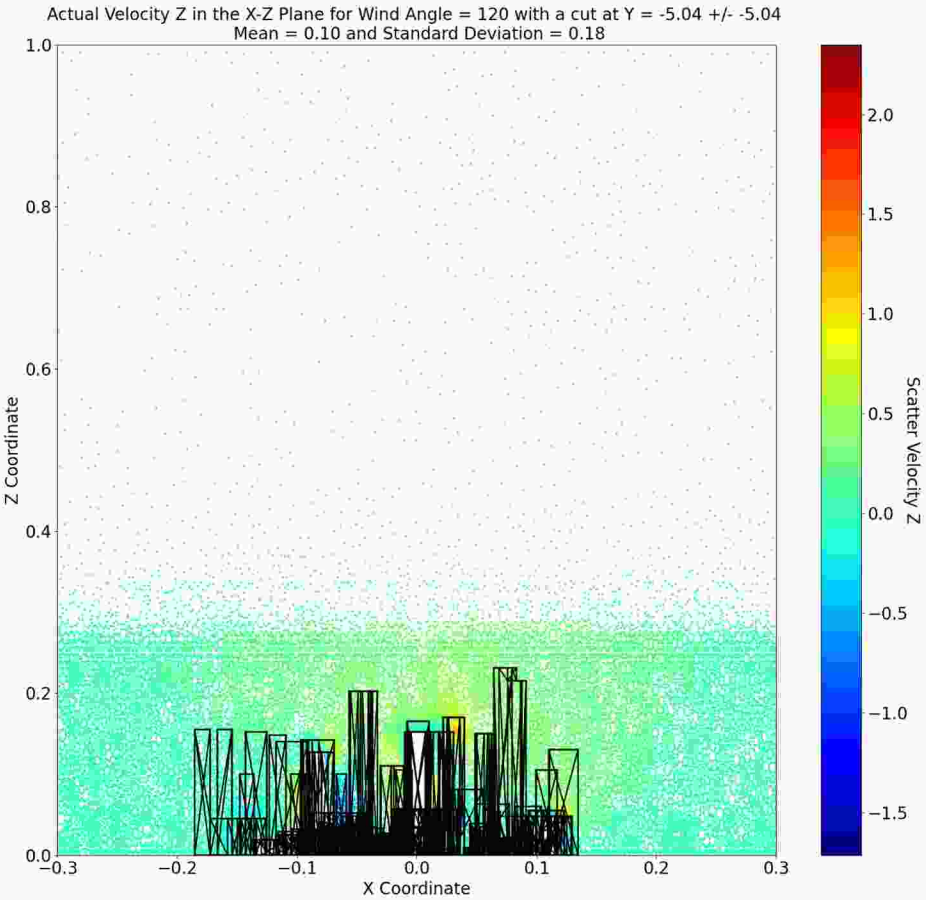


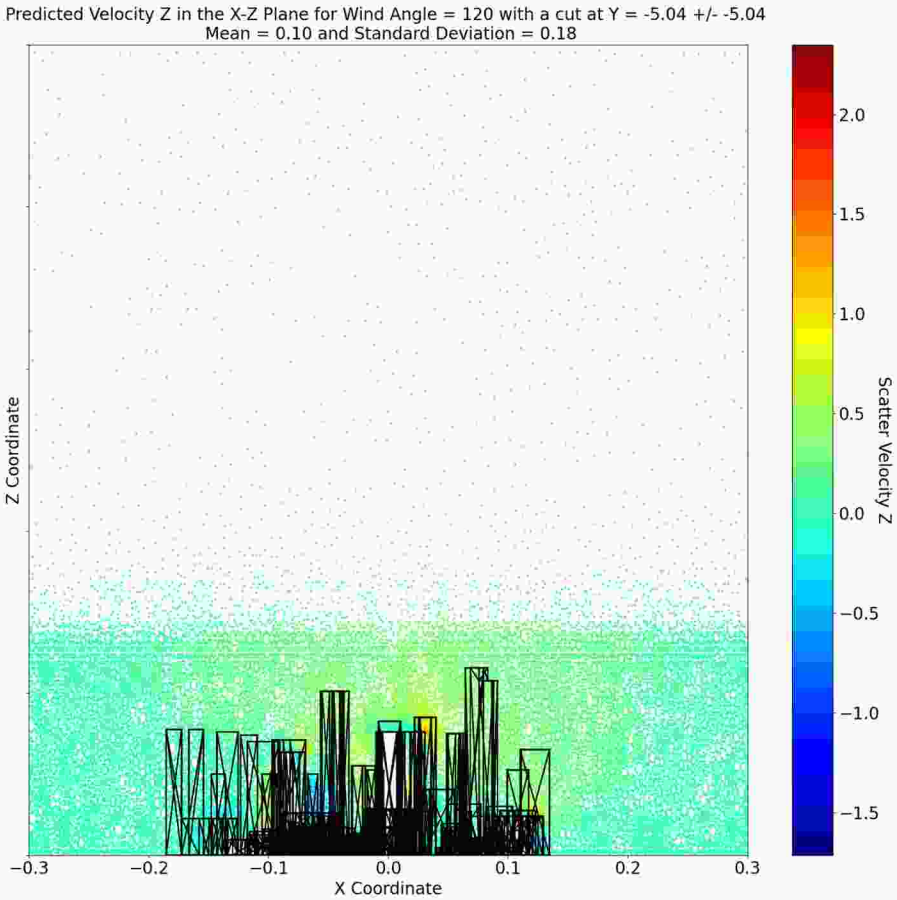
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



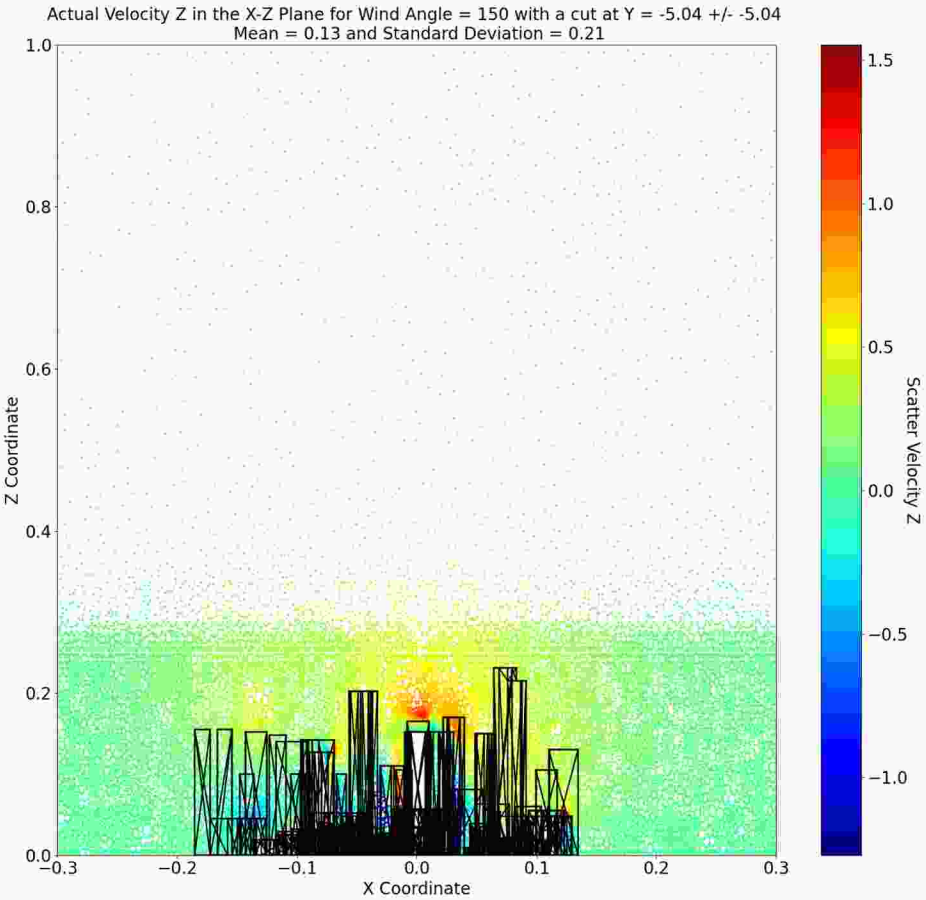


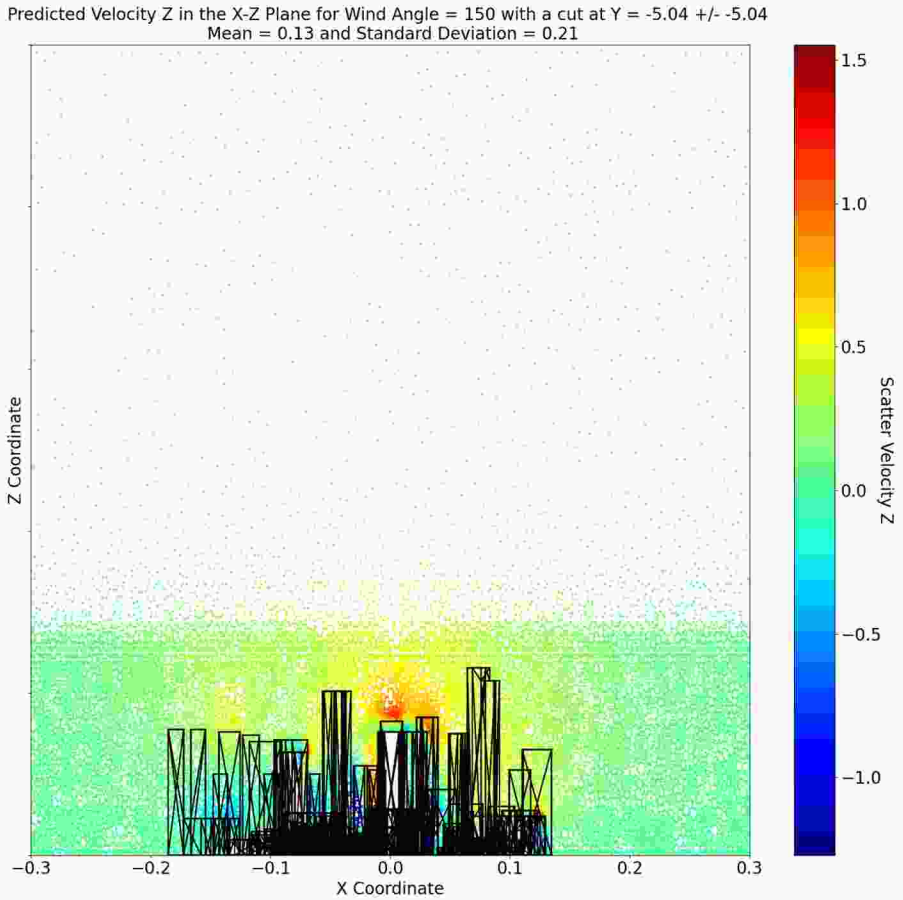
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



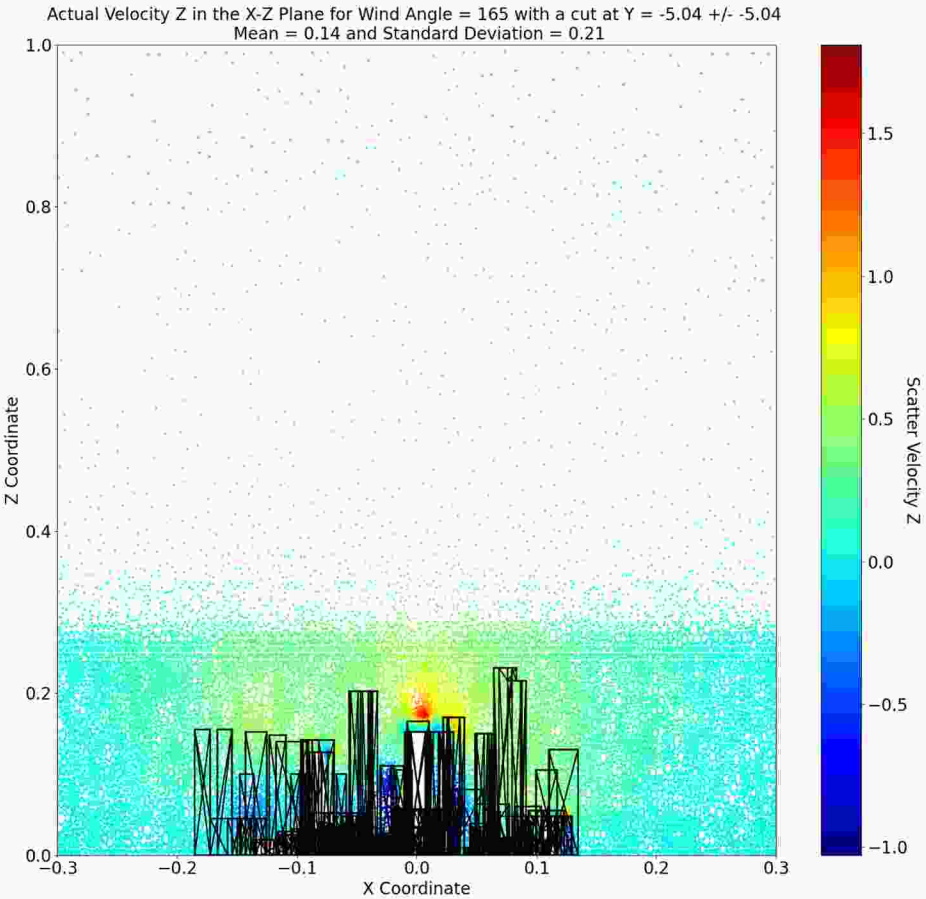


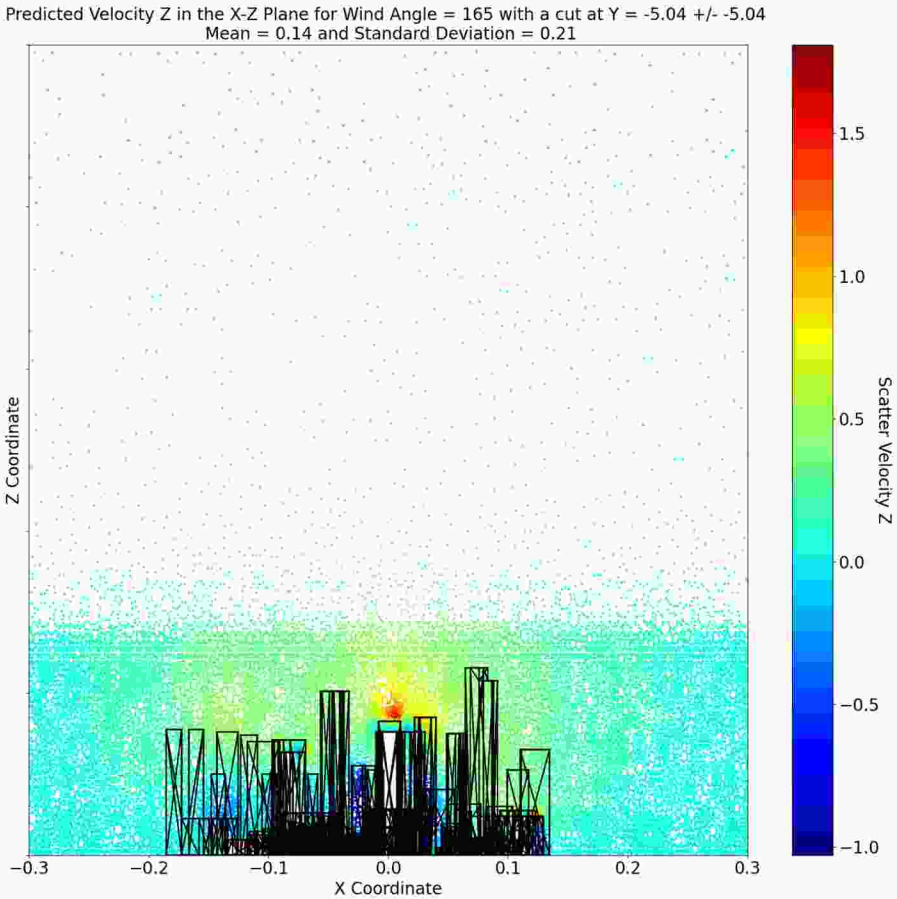
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04



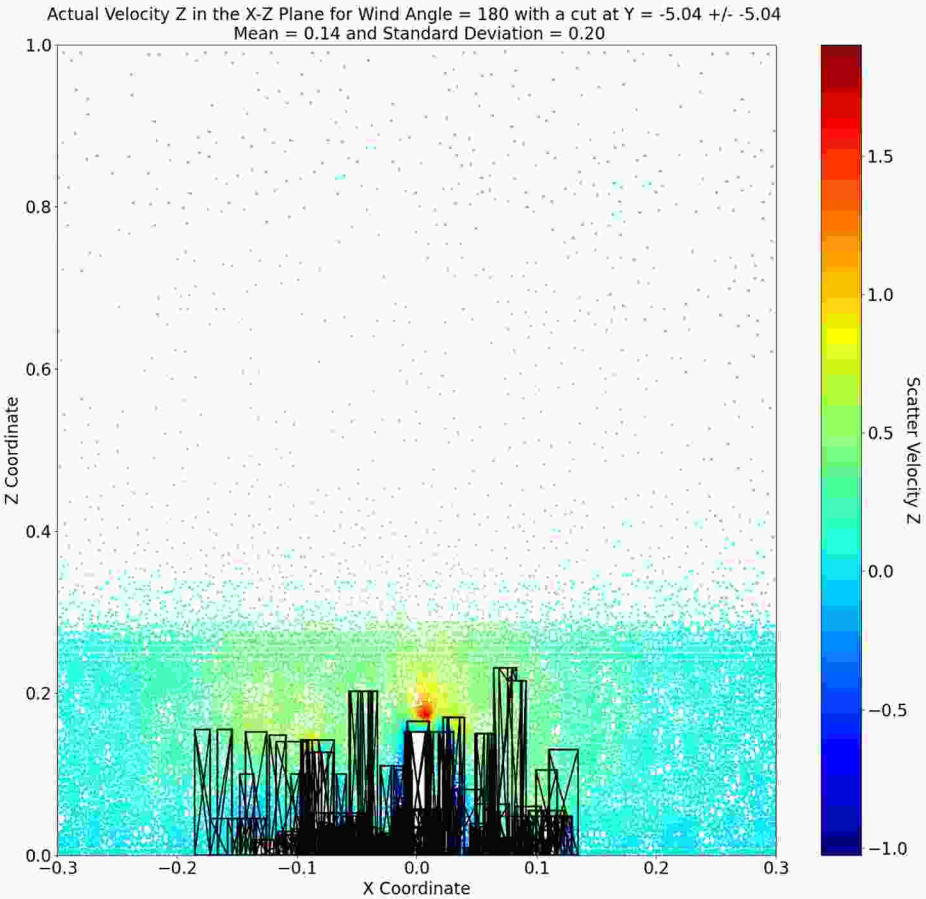


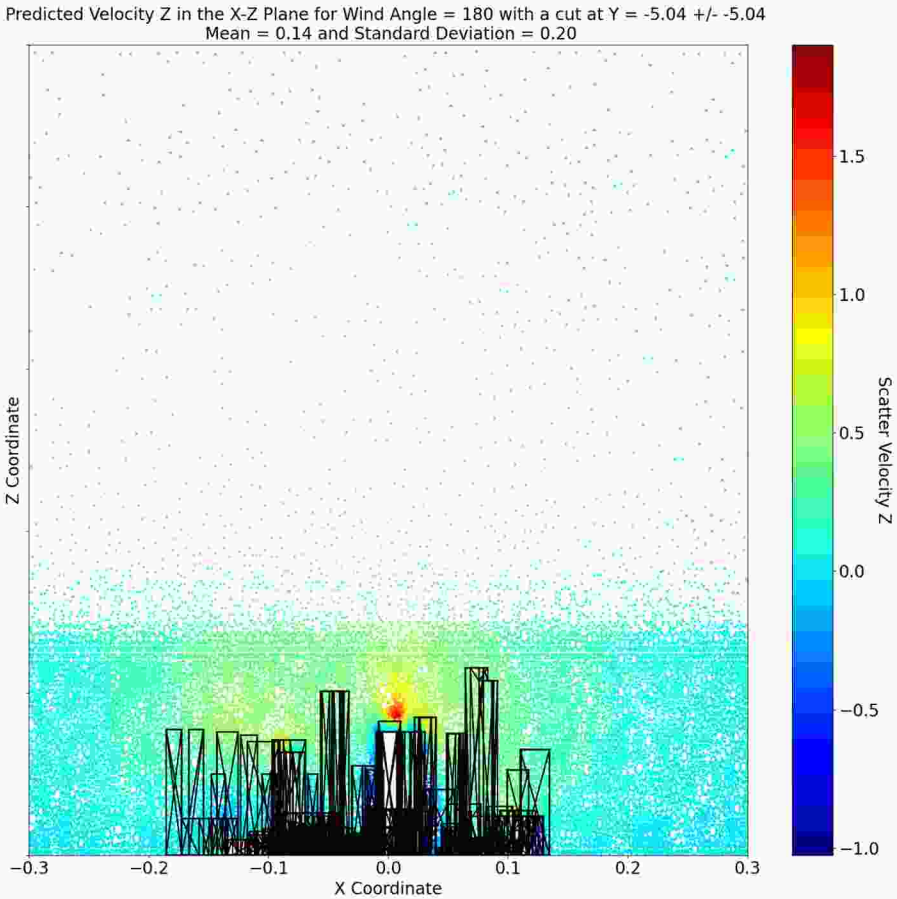
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

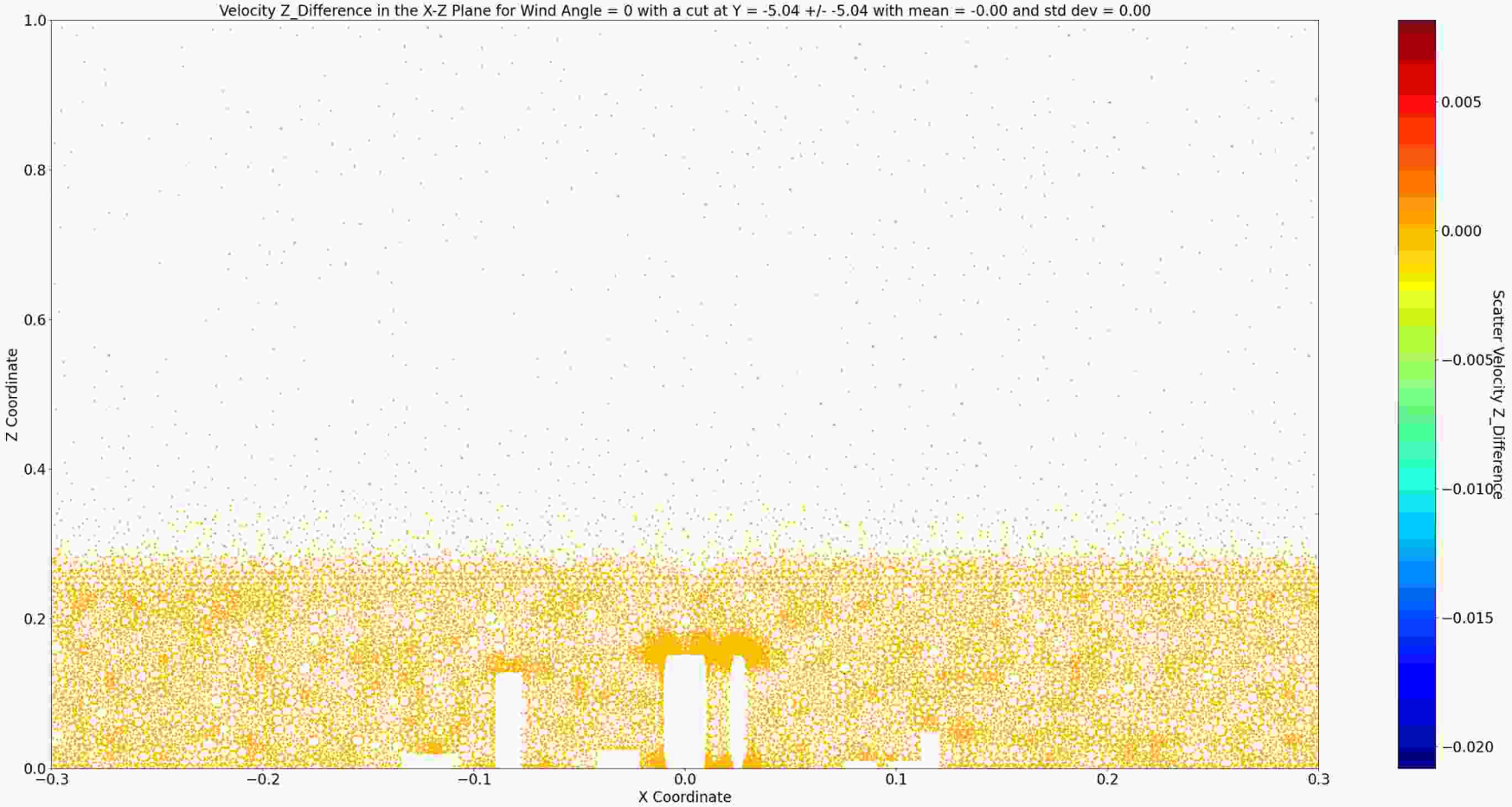


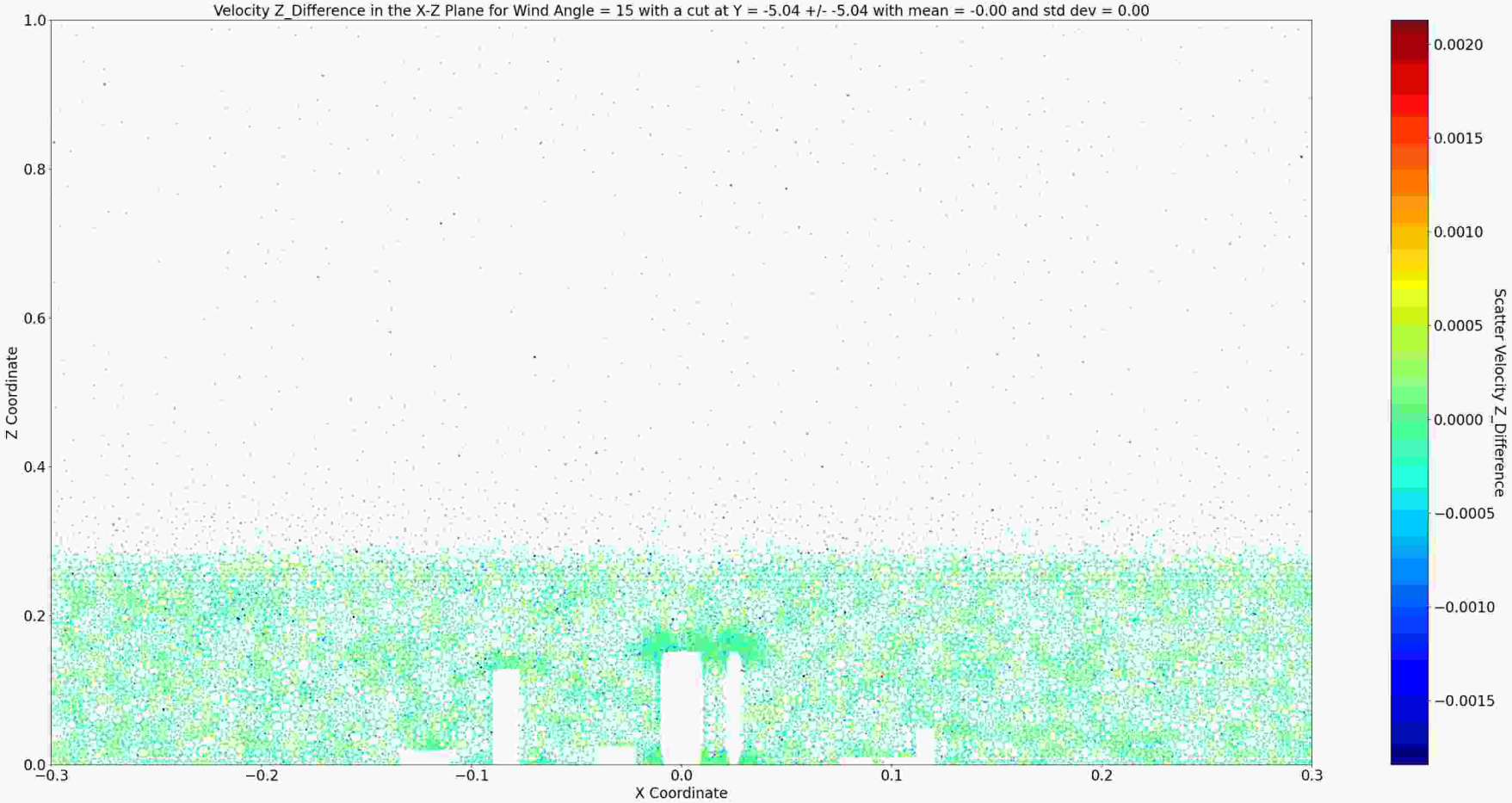


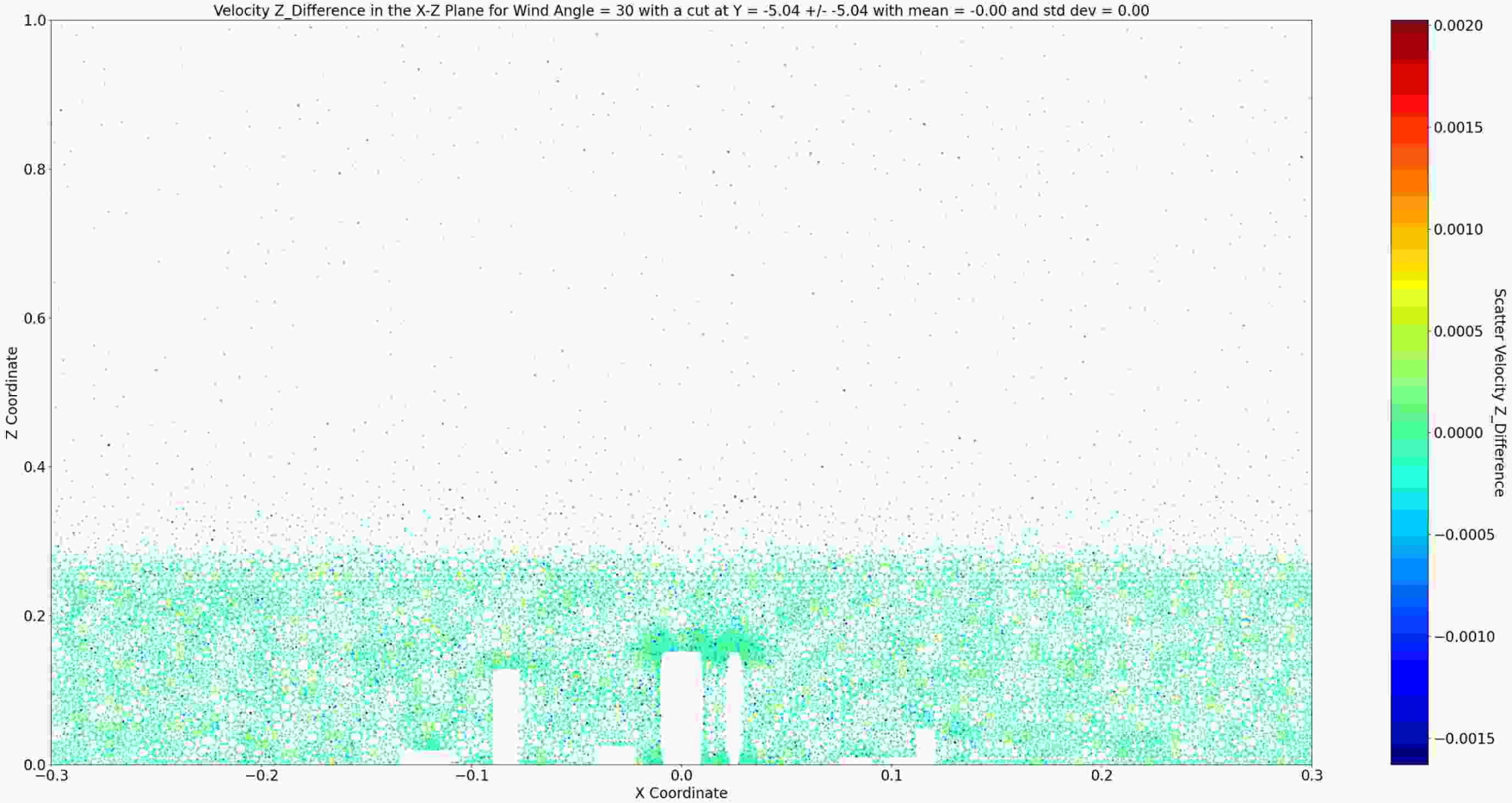
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

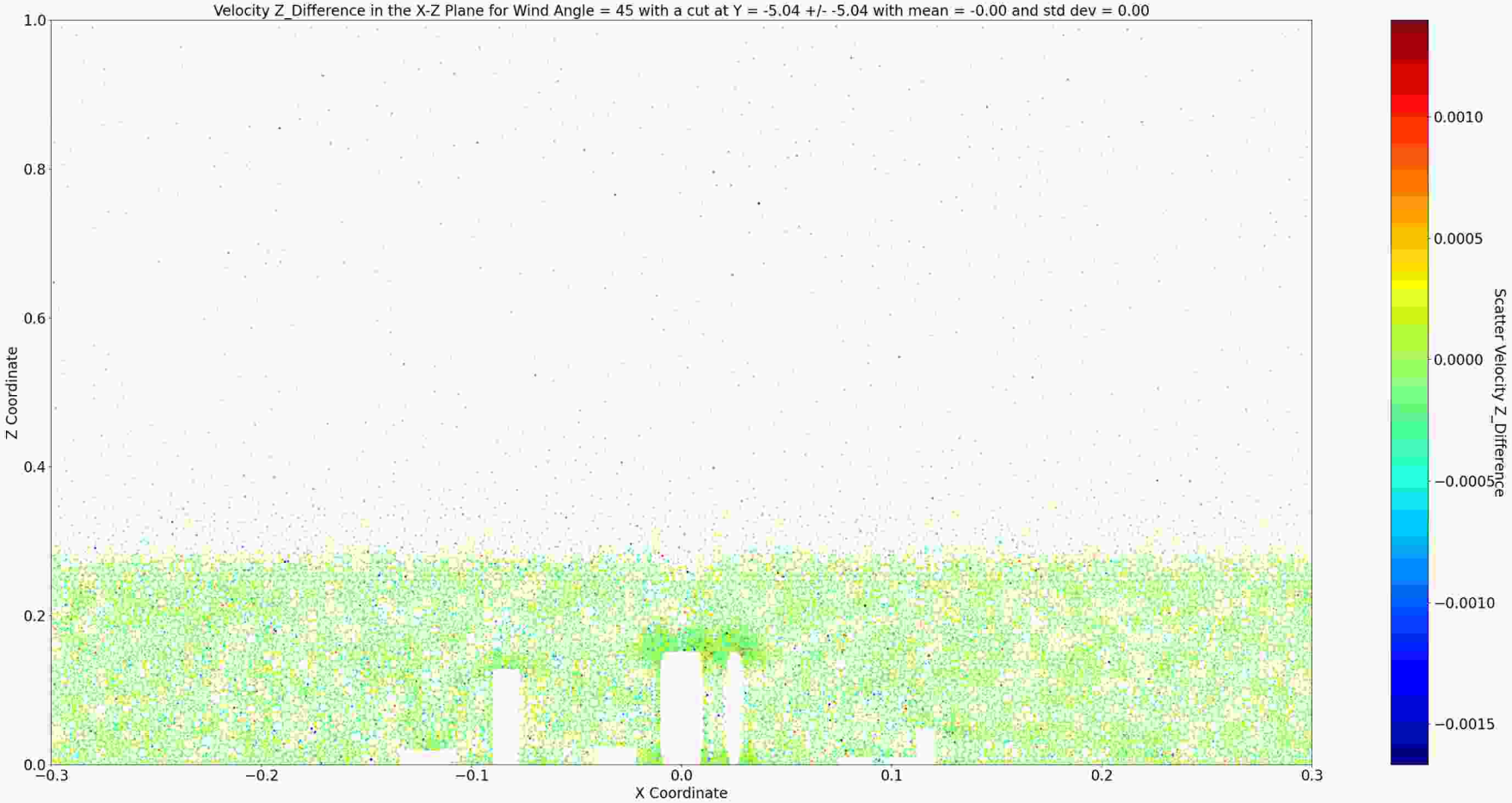


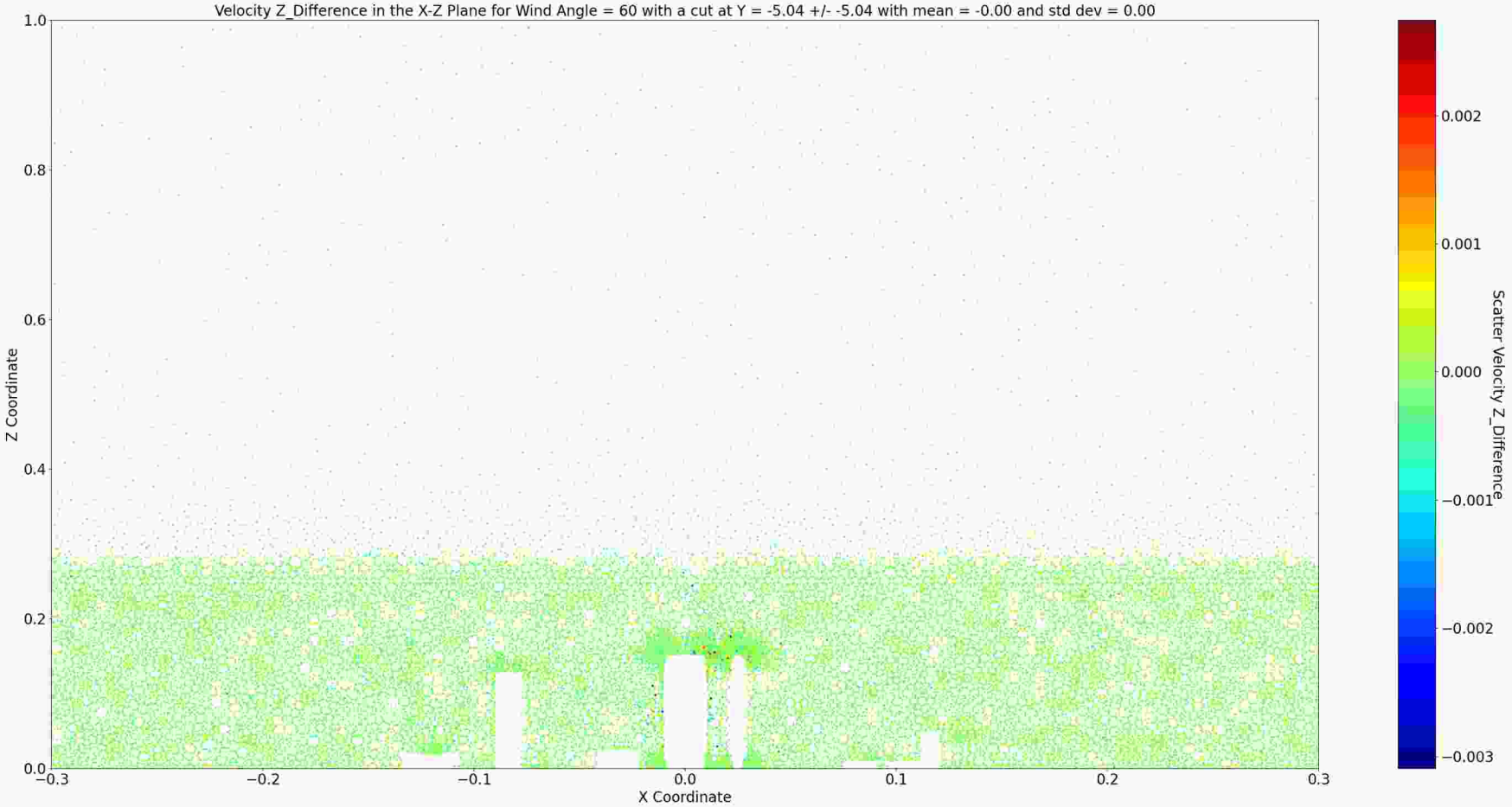


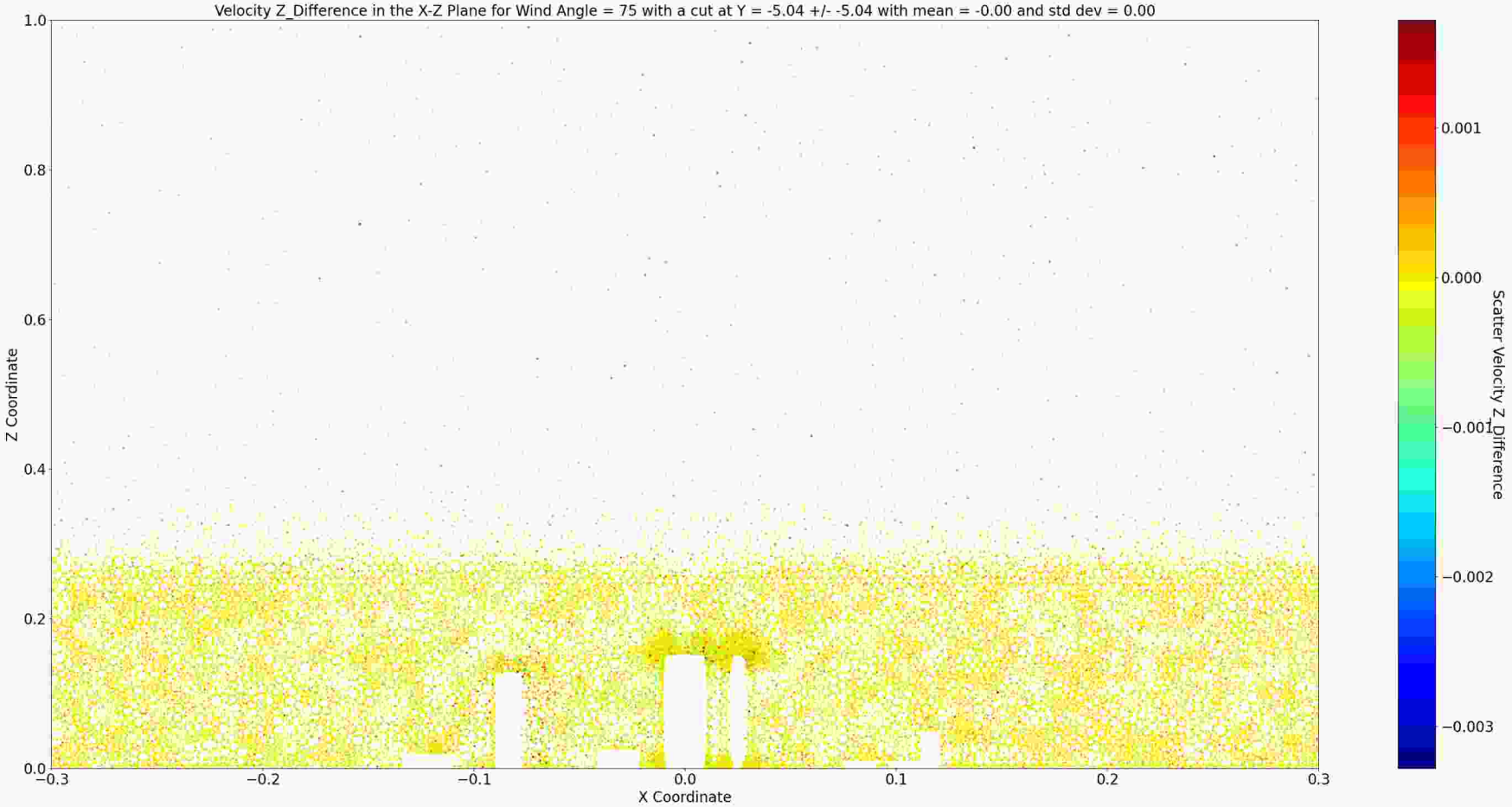

Velocity Z_Difference in the X-Z Plane for Wind Angle = 0 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity Z_Difference
0.005
0.000
−0.005
−0.010
−0.015
−0.020

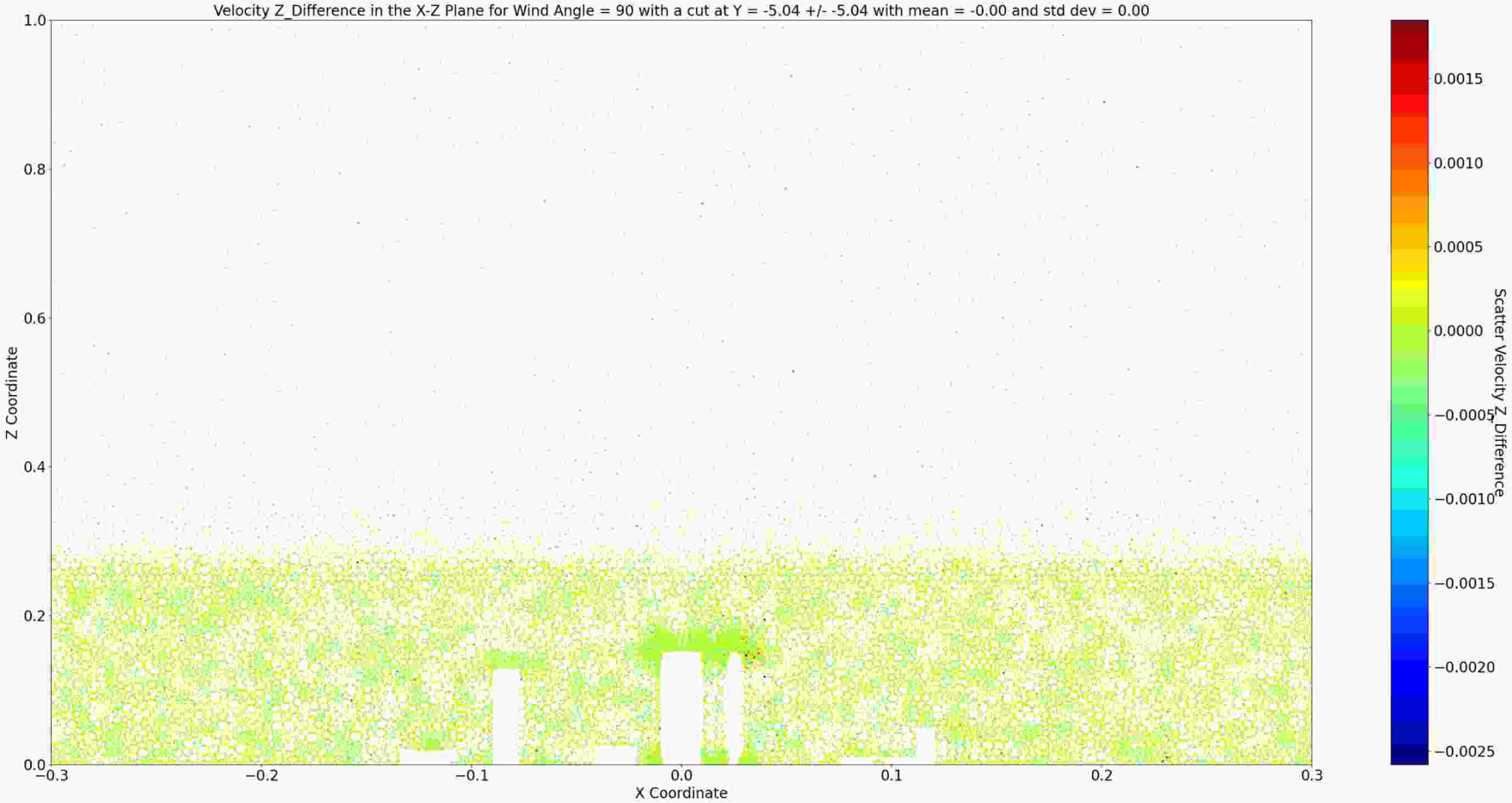

Velocity Z_Difference in the X-Z Plane for Wind Angle = 15 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0020
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015

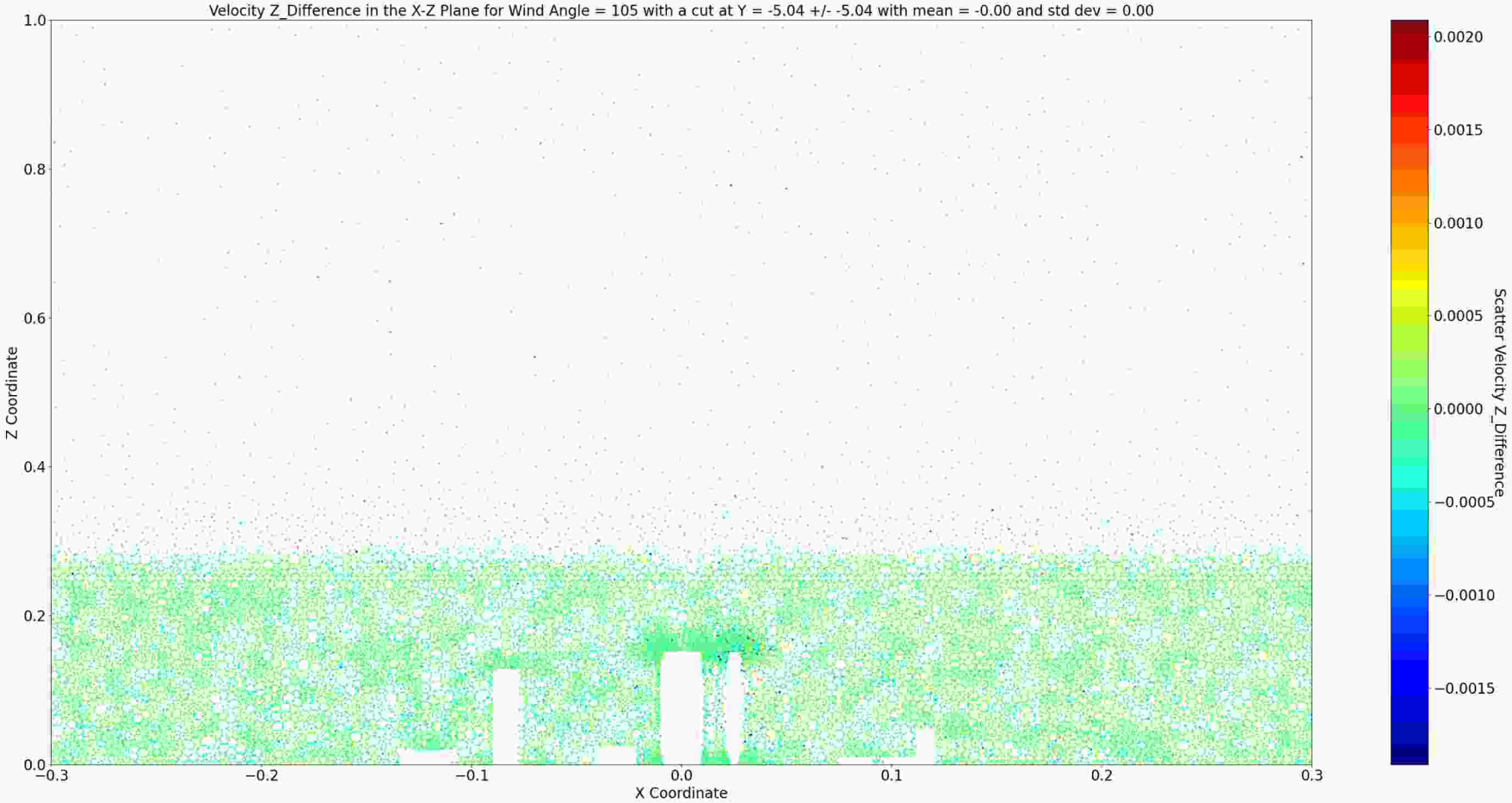

Velocity Z_Difference in the X-Z Plane for Wind Angle = 30 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0020
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015

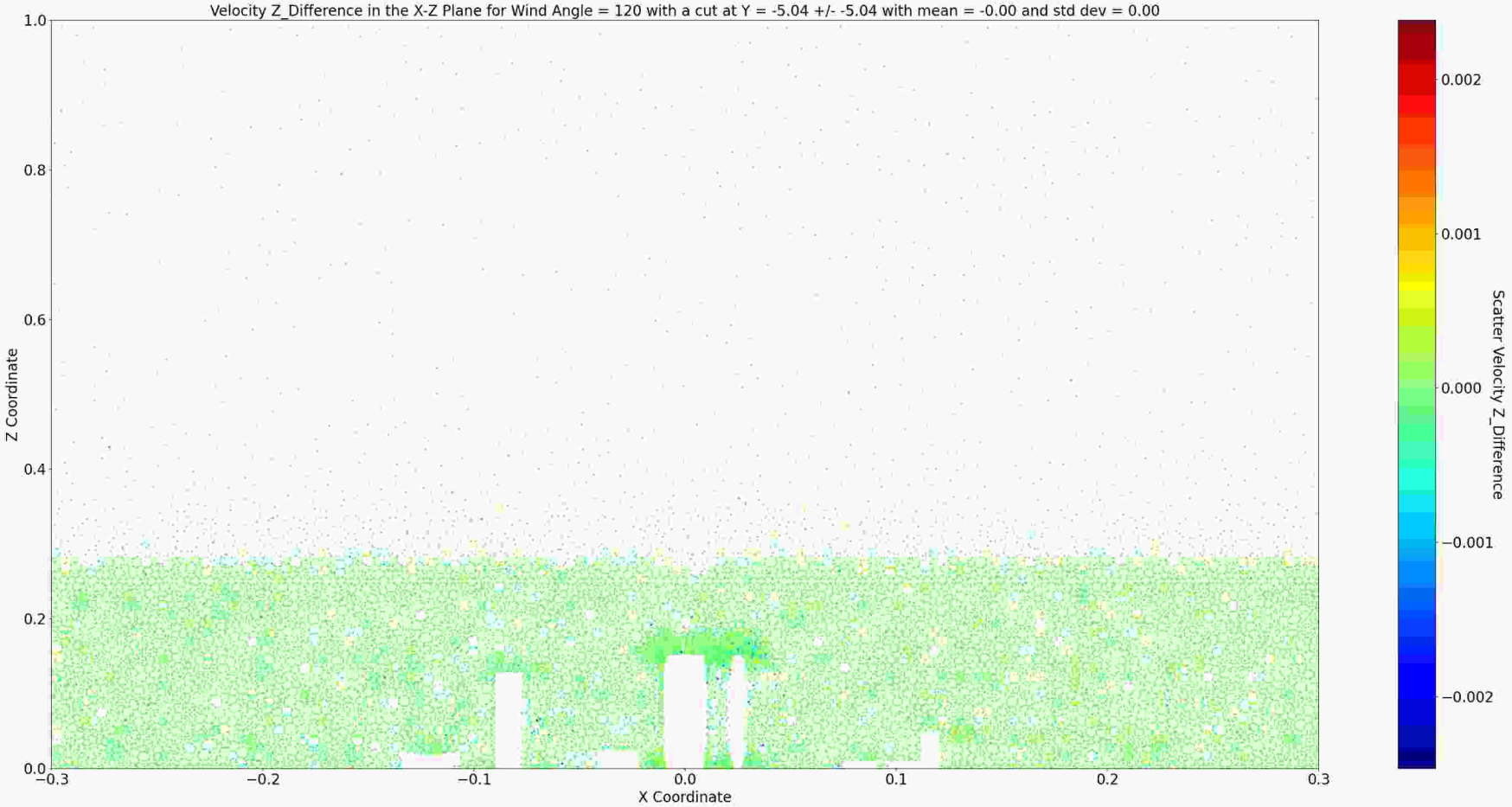

Velocity Z_Difference in the X-Z Plane for Wind Angle = 45 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015

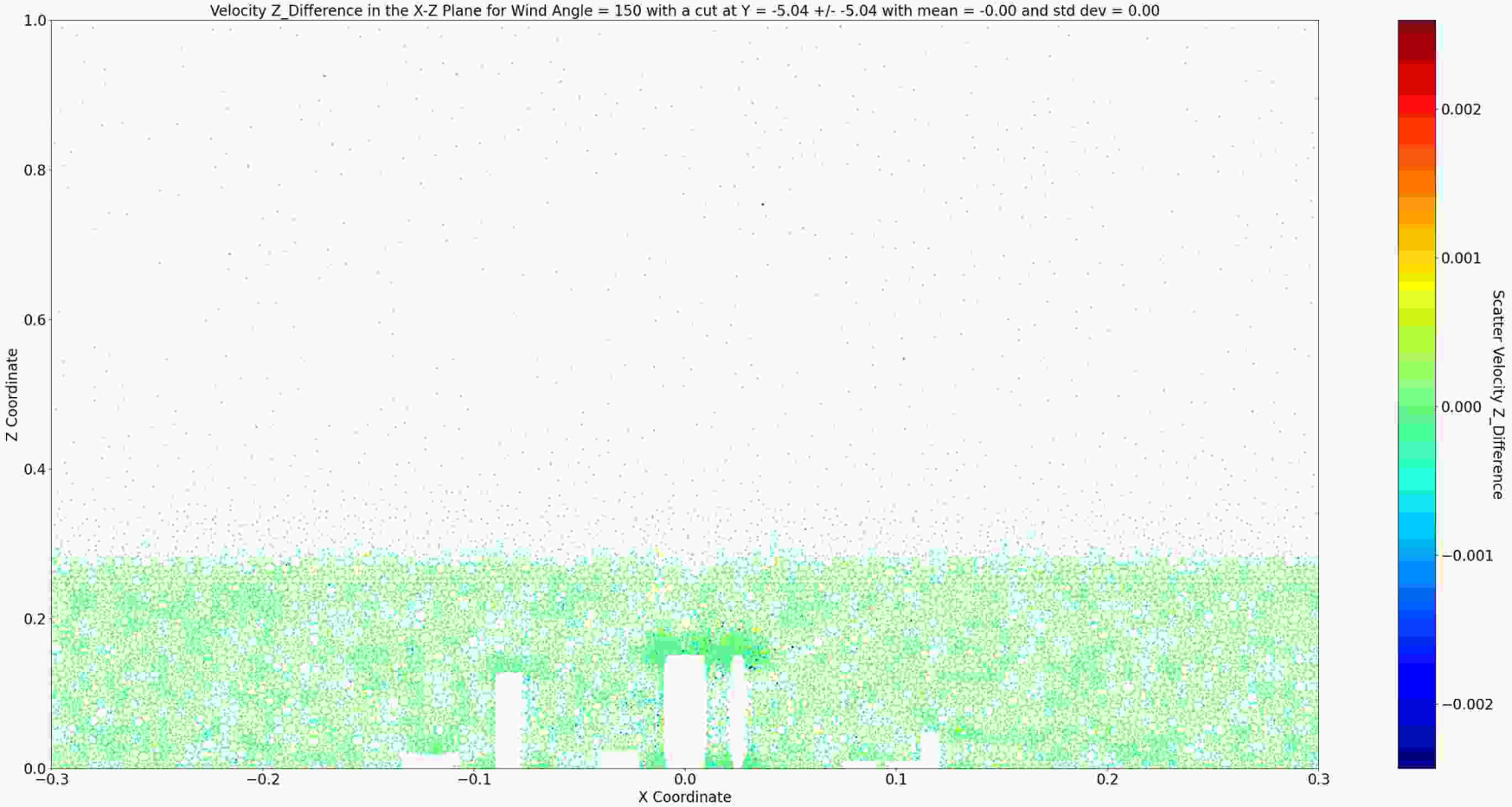

Velocity Z_Difference in the X-Z Plane for Wind Angle = 60 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.002
0.001
0.000
−0.001
−0.002
−0.003

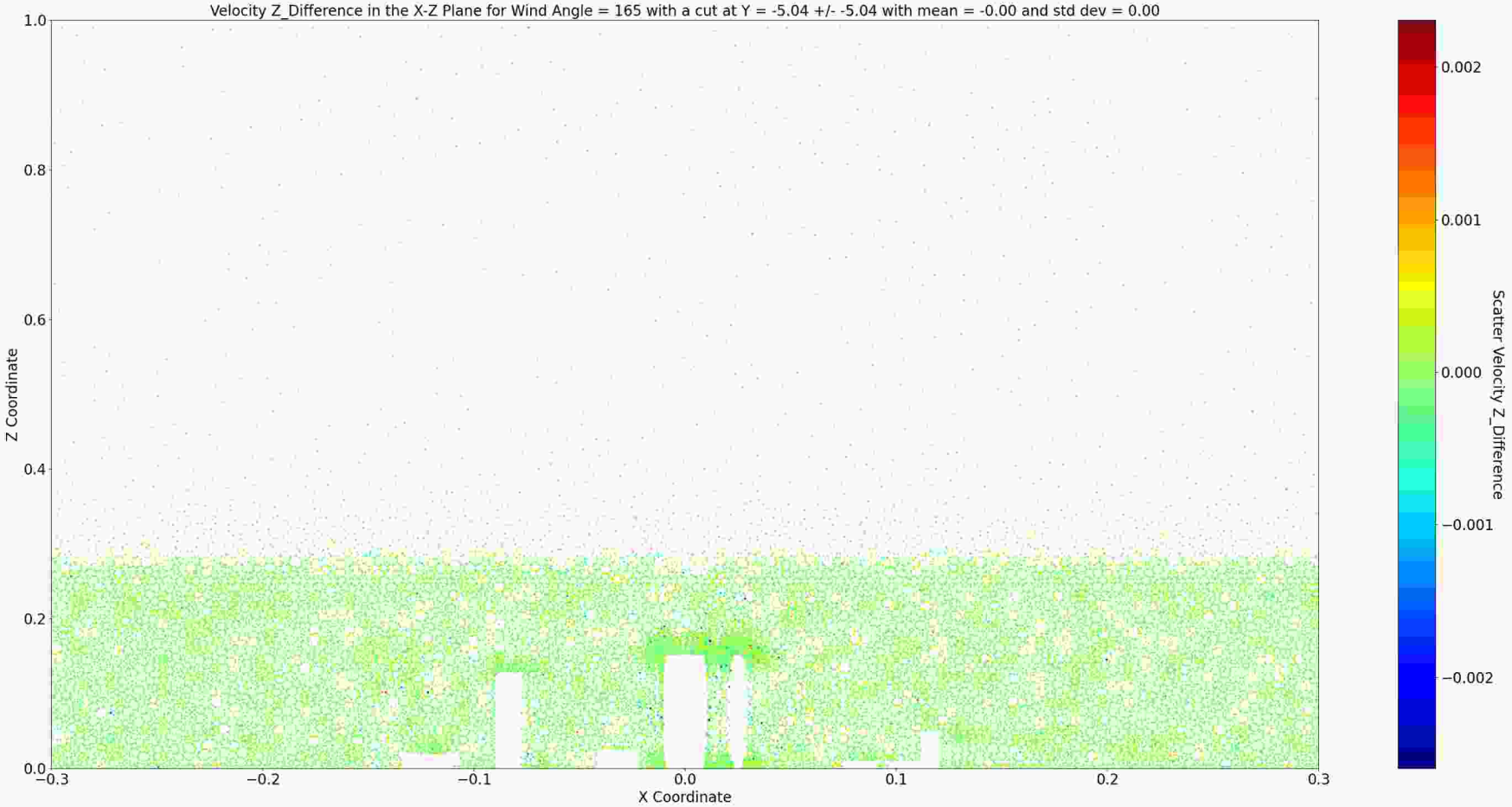

Velocity Z_Difference in the X-Z Plane for Wind Angle = 75 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity Z Difference
0.001
0.000
−0.001
−0.002
−0.003

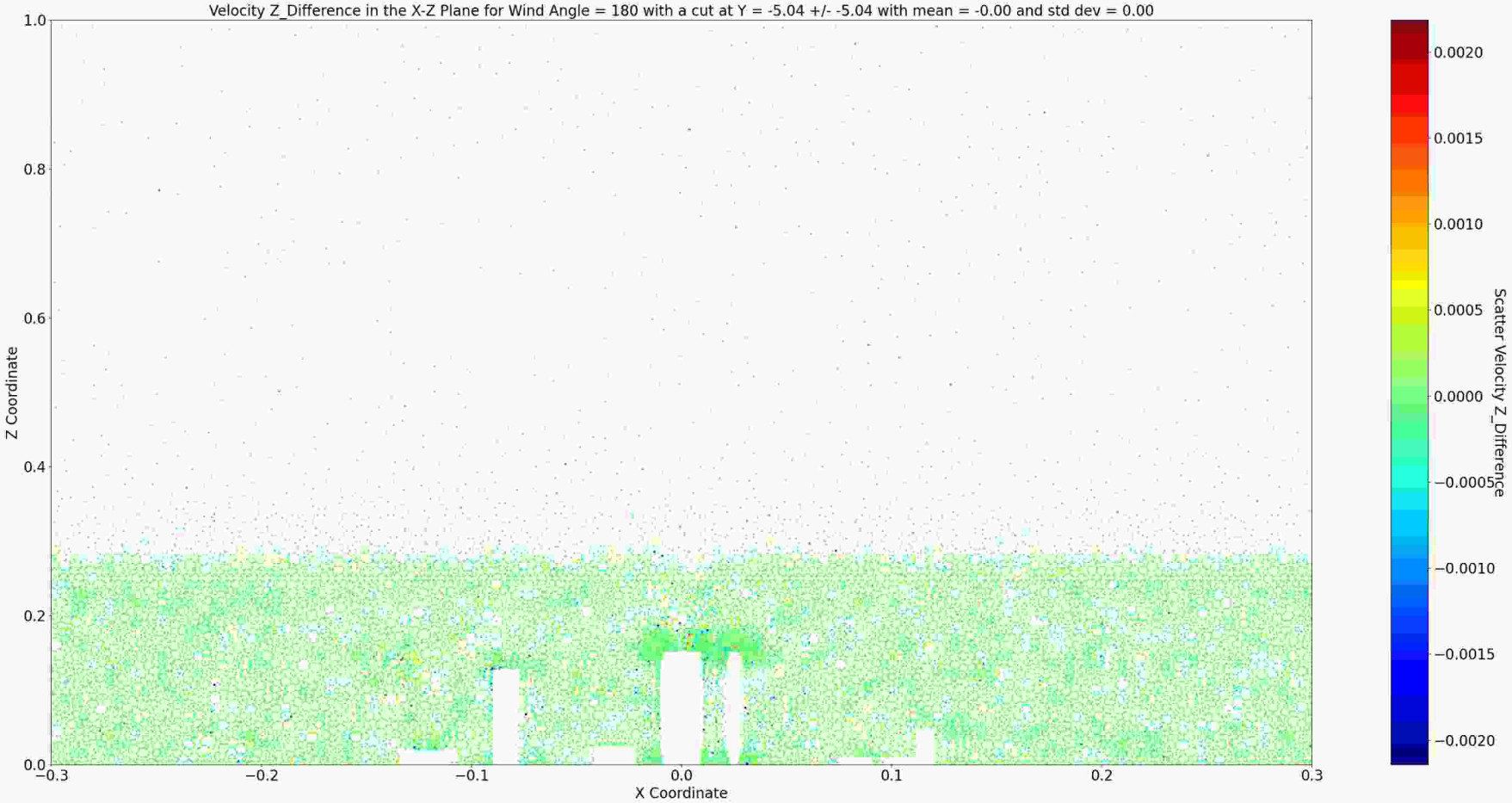

Velocity Z_Difference in the X-Z Plane for Wind Angle = 90 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015
−0.0020
−0.0025


Velocity Z_Difference in the X-Z Plane for Wind Angle = 105 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0020
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015

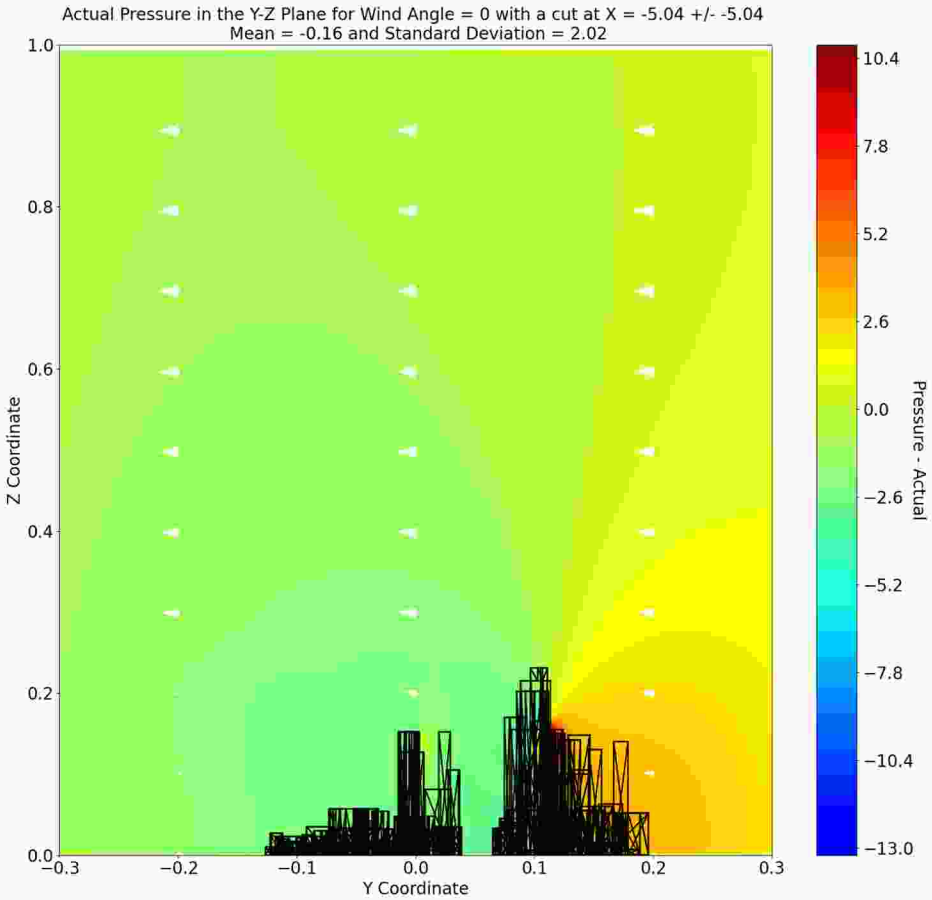

Velocity Z_Difference in the X-Z Plane for Wind Angle = 120 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.002
0.001
0.000
−0.001
−0.002

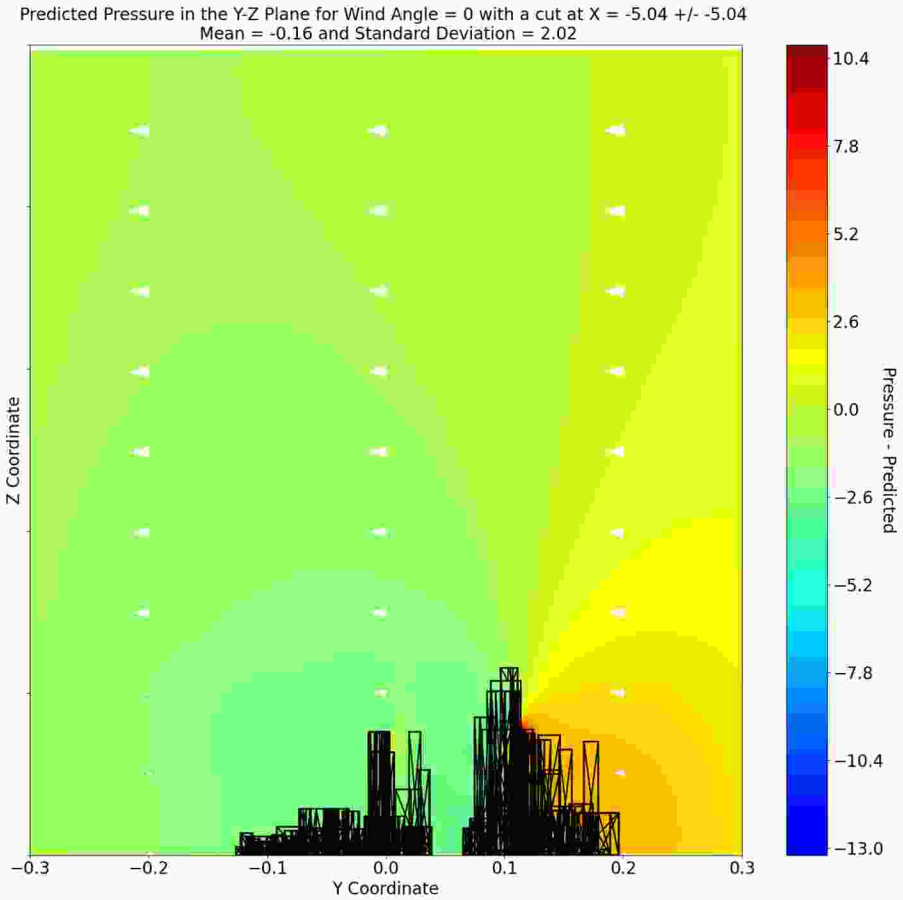

Velocity Z_Difference in the X-Z Plane for Wind Angle = 150 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.002
0.001
0.000
−0.001
−0.002

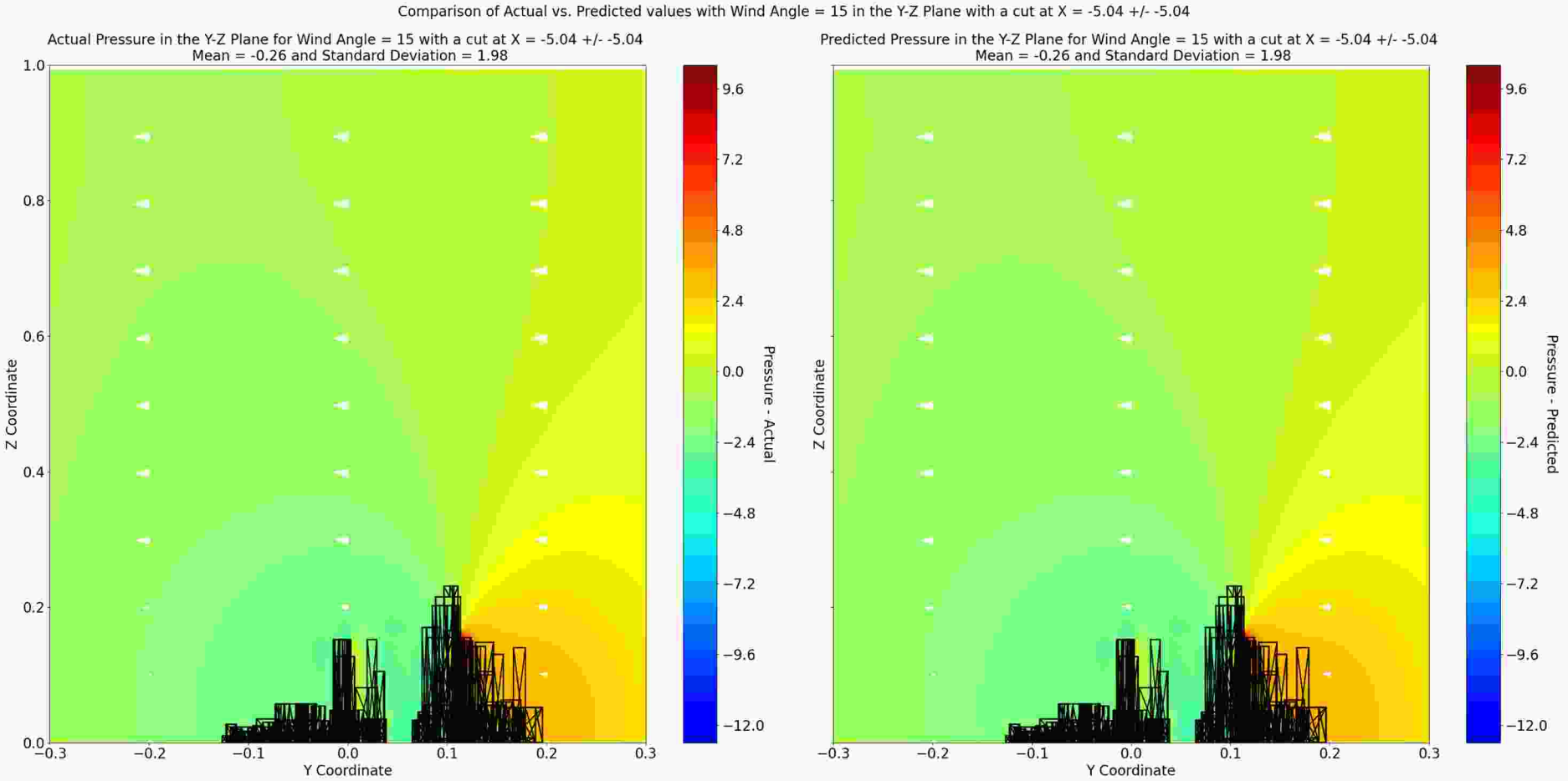

Velocity Z_Difference in the X-Z Plane for Wind Angle = 165 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.002
0.001
0.000
−0.001
−0.002


Velocity Z_Difference in the X-Z Plane for Wind Angle = 180 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
X Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0020
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015
−0.0020

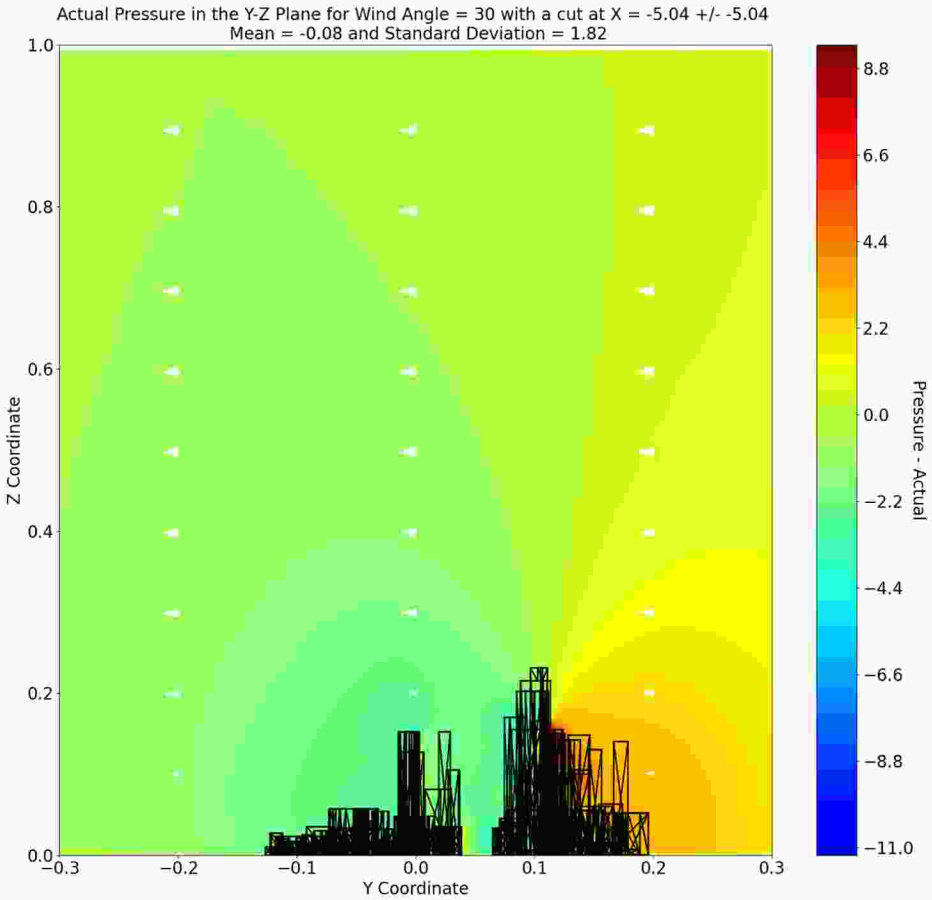
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

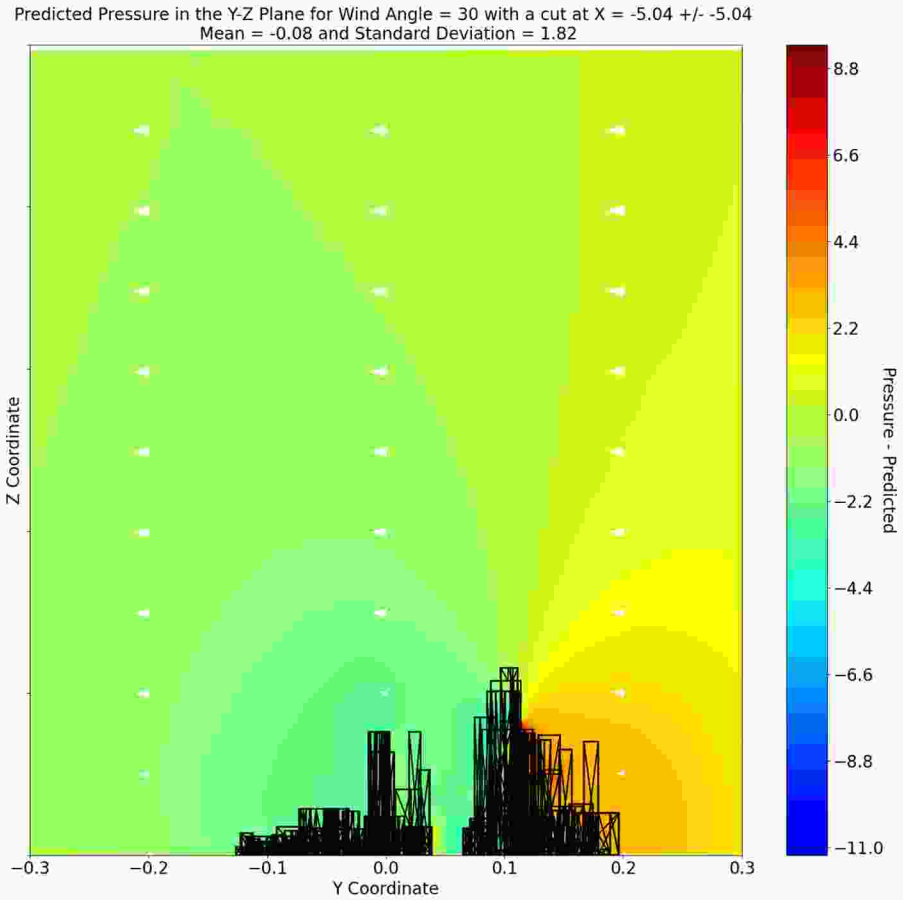




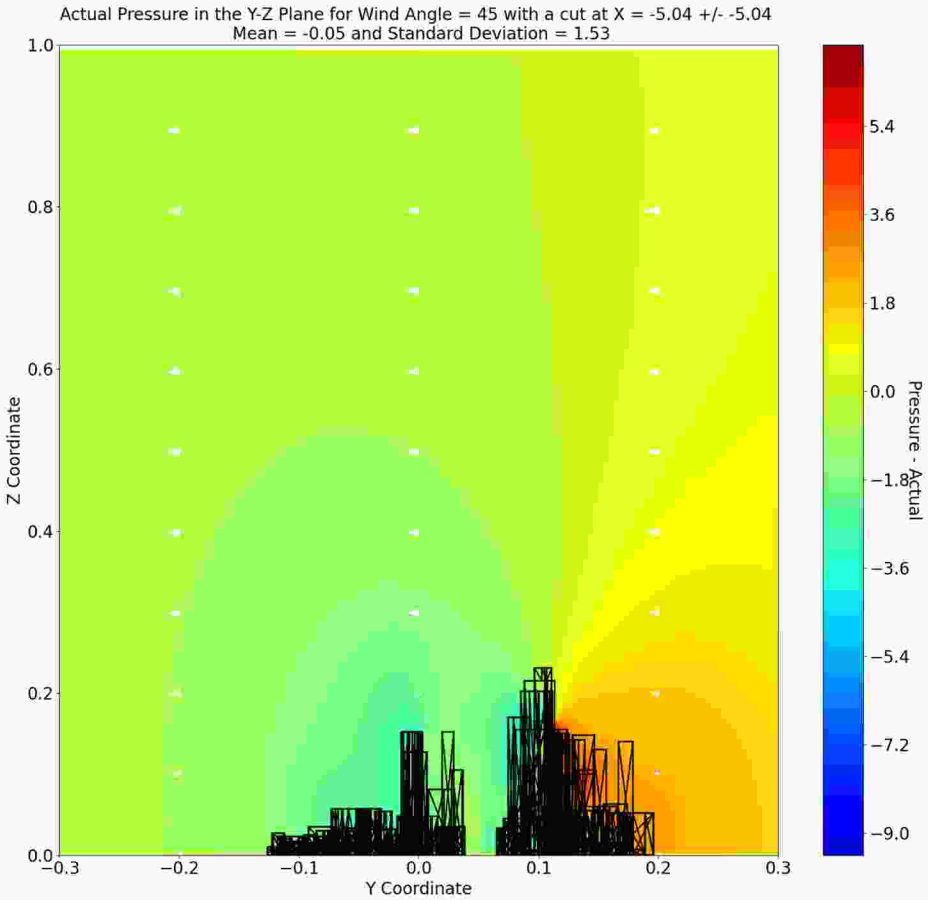

Comparison of Actual vs. Predicted values with Wind Angle = 15 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04
Actual Pressure in the Y-Z Plane for Wind Angle = 15 with a cut at X = -5.04 +/- -5.04
Mean = -0.26 and Standard Deviation = 1.98
Predicted Pressure in the Y-Z Plane for Wind Angle = 15 with a cut at X = -5.04 +/- -5.04
Mean = -0.26 and Standard Deviation = 1.98
Z Coordinate
Y Coordinate
Pressure - Actual
Pressure - Predicted
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
9.6
7.2
4.8
2.4
0.0
−2.4
−4.8
−7.2
−9.6
−12.0

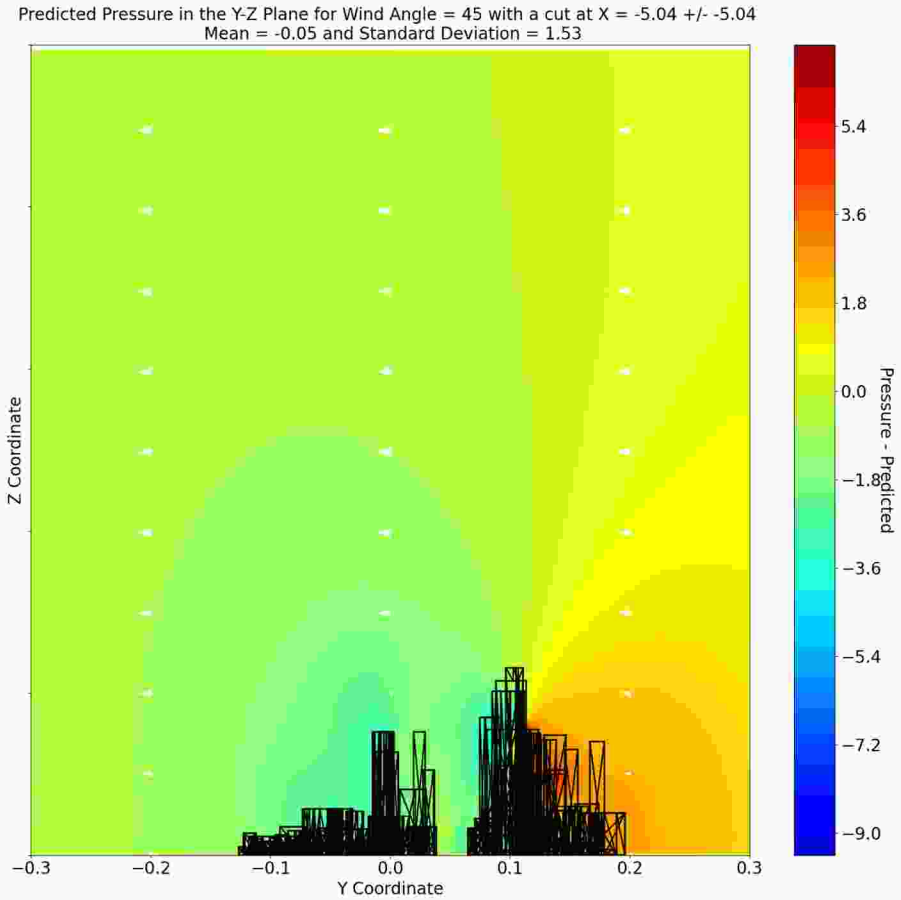
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



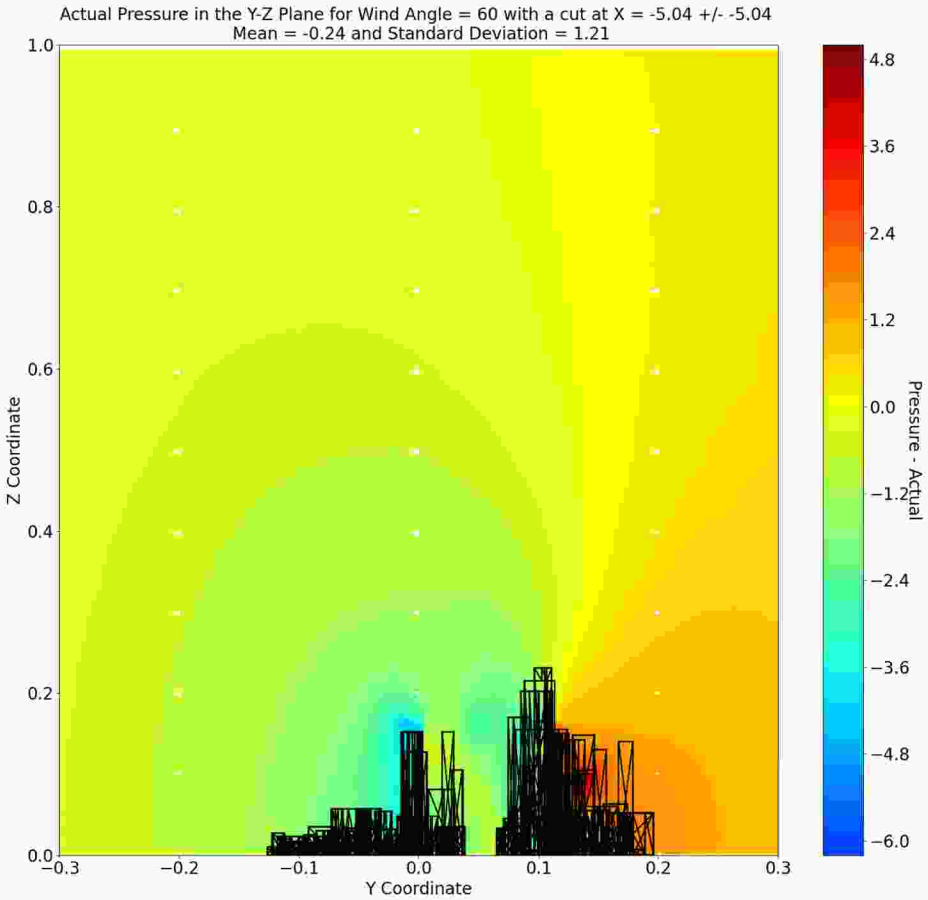


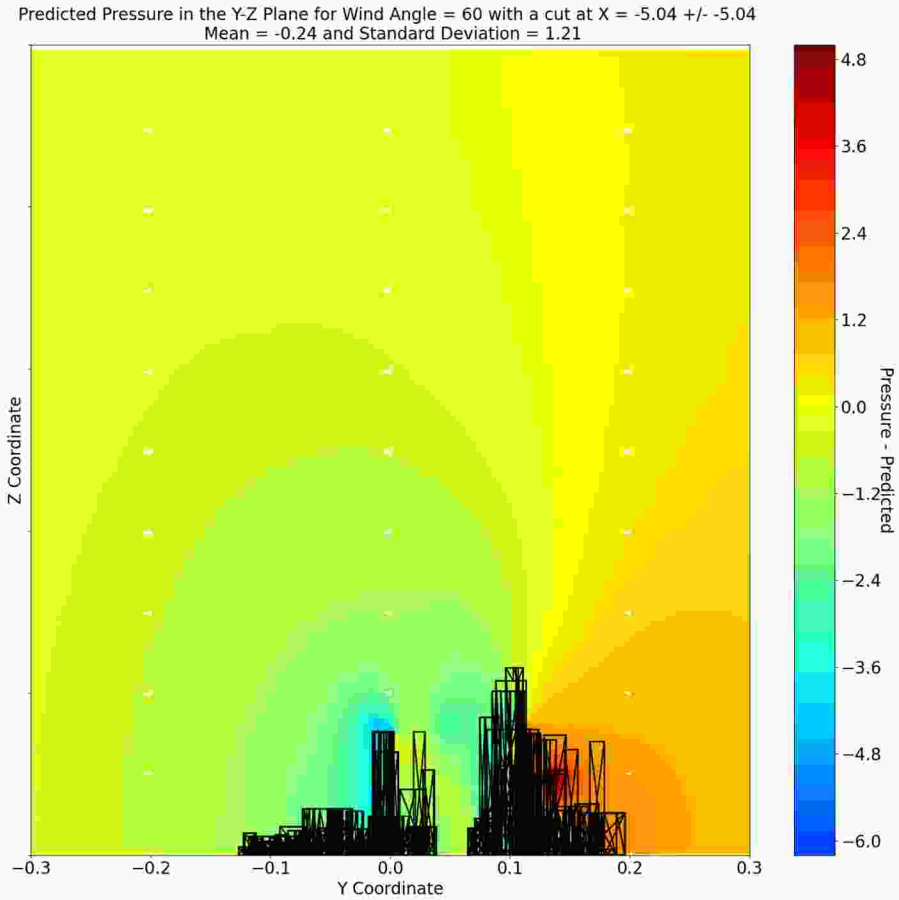
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

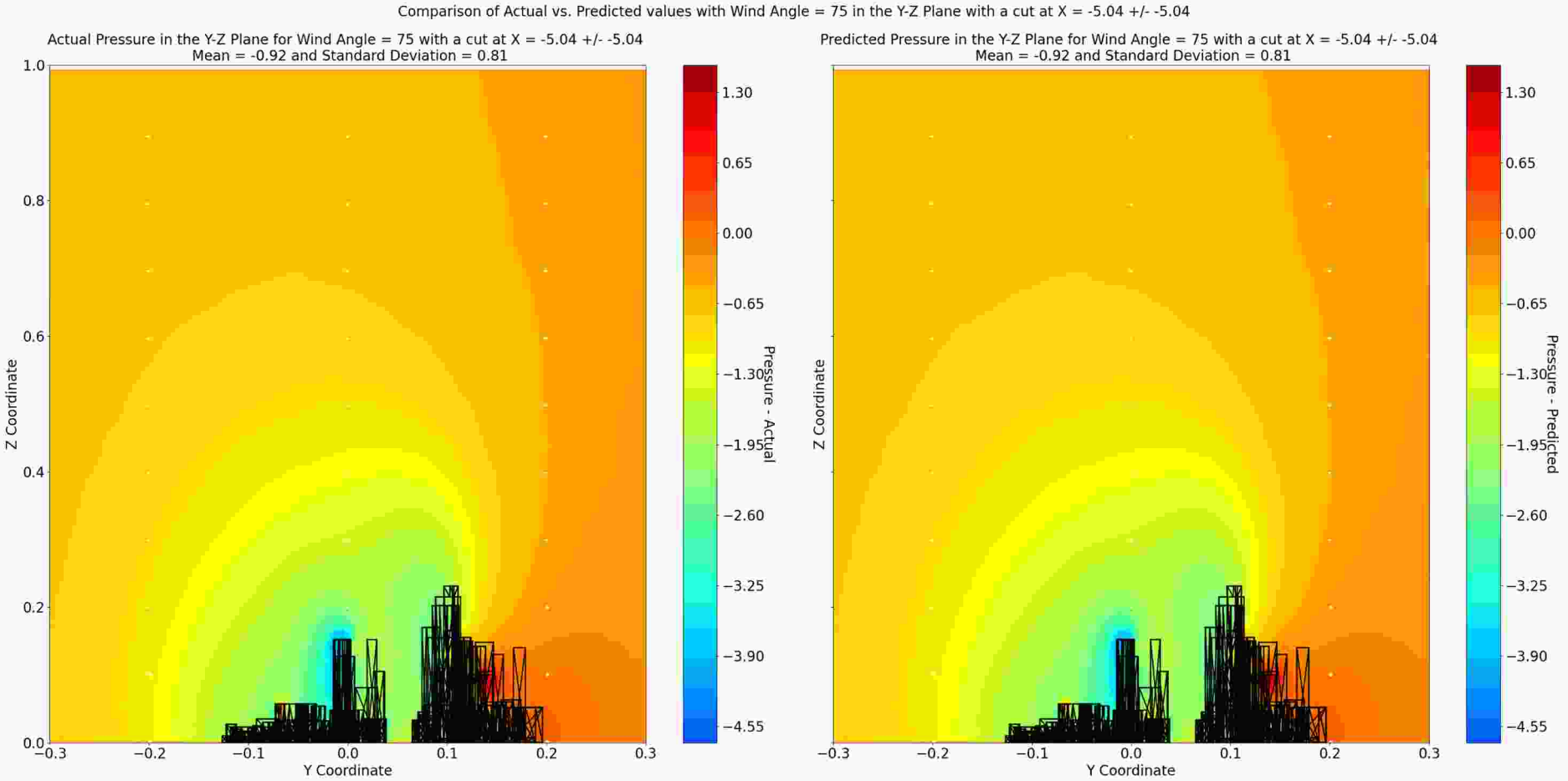




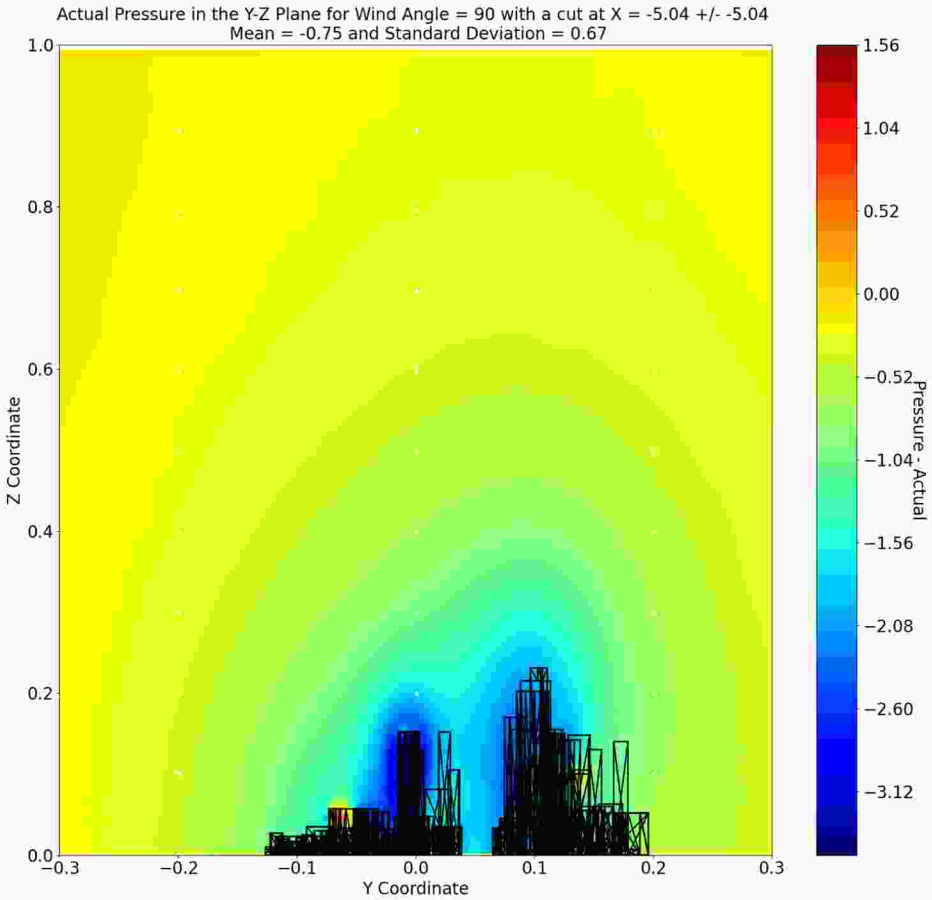
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

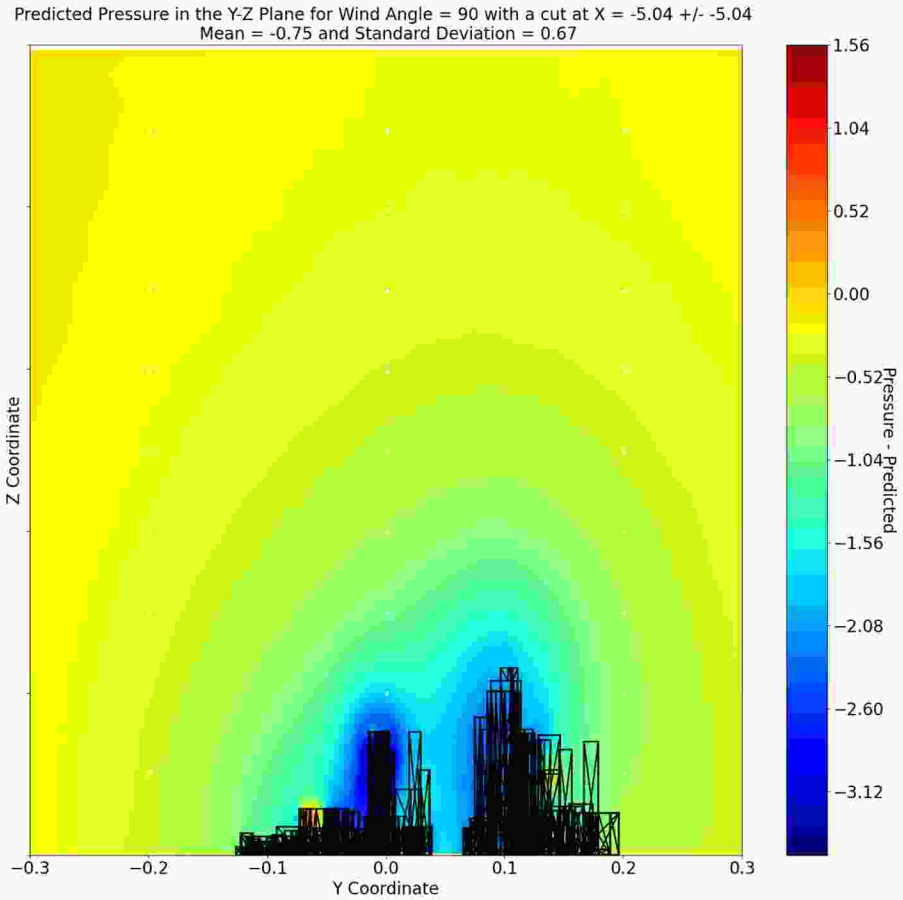




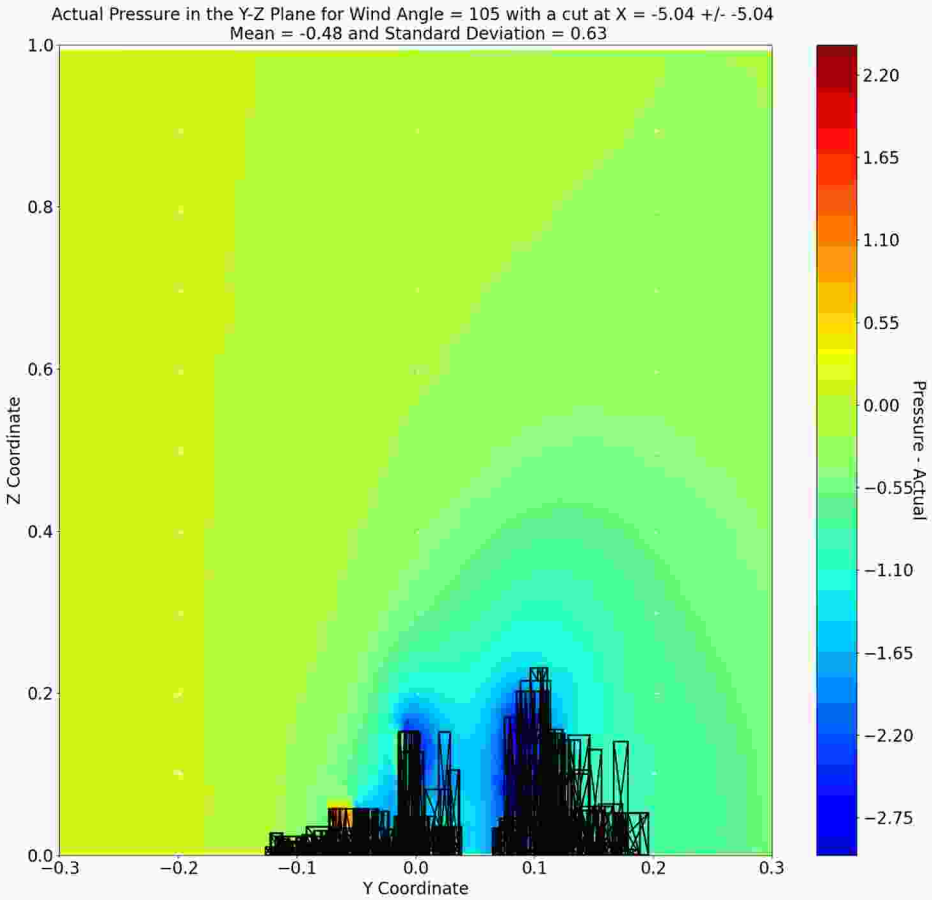

Comparison of Actual vs. Predicted values with Wind Angle = 75 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04
Actual Pressure in the Y-Z Plane for Wind Angle = 75 with a cut at X = -5.04 +/- -5.04
Mean = -0.92 and Standard Deviation = 0.81
Predicted Pressure in the Y-Z Plane for Wind Angle = 75 with a cut at X = -5.04 +/- -5.04
Mean = -0.92 and Standard Deviation = 0.81
Z Coordinate
Y Coordinate
Pressure - Actual
Pressure - Predicted
1.30
0.65
0.00
−0.65
−1.30
−1.95
−2.60
−3.25
−3.90
−4.55
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3

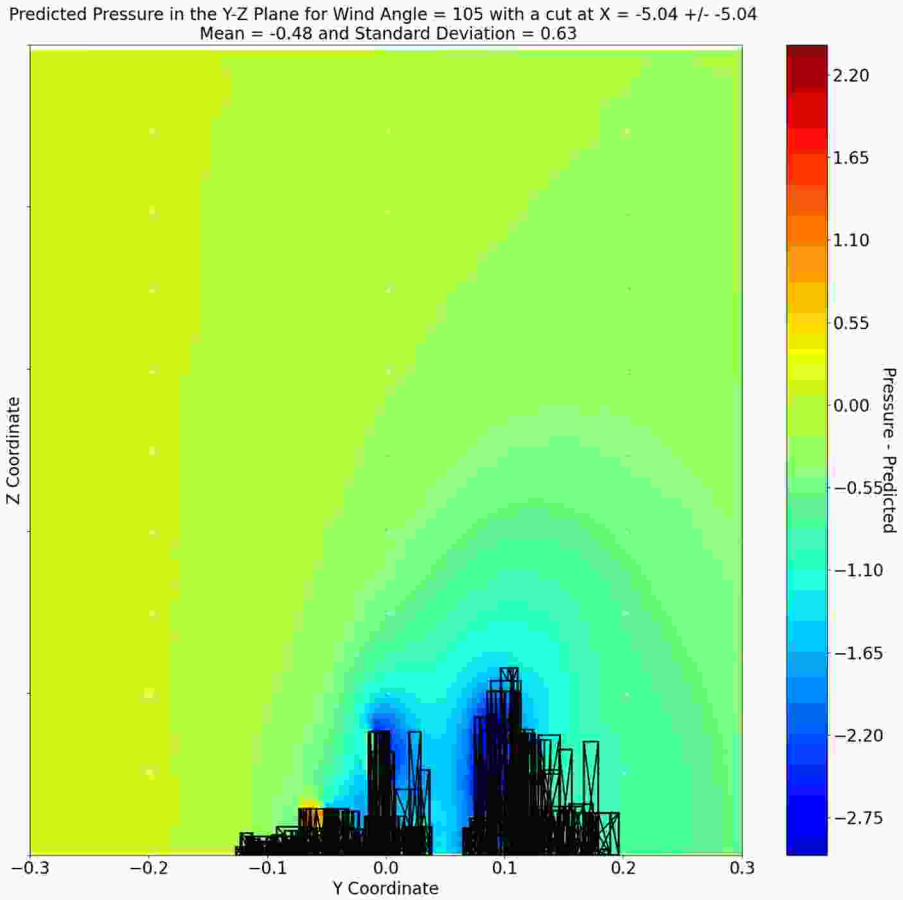
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



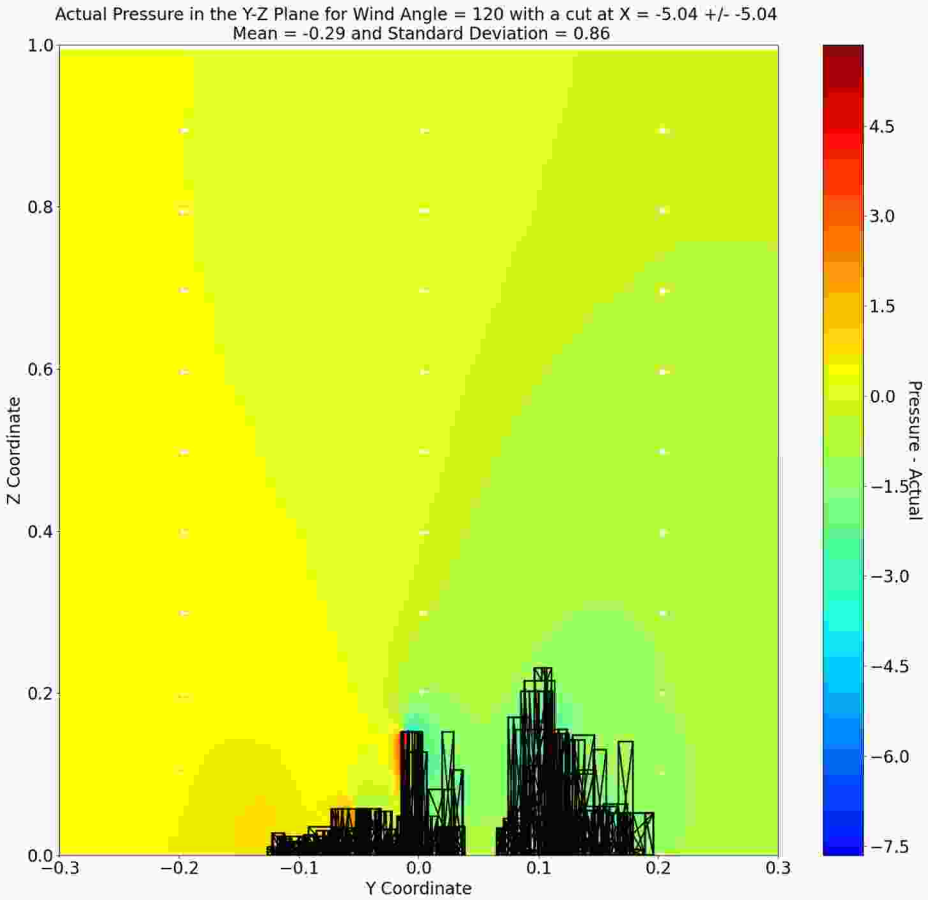


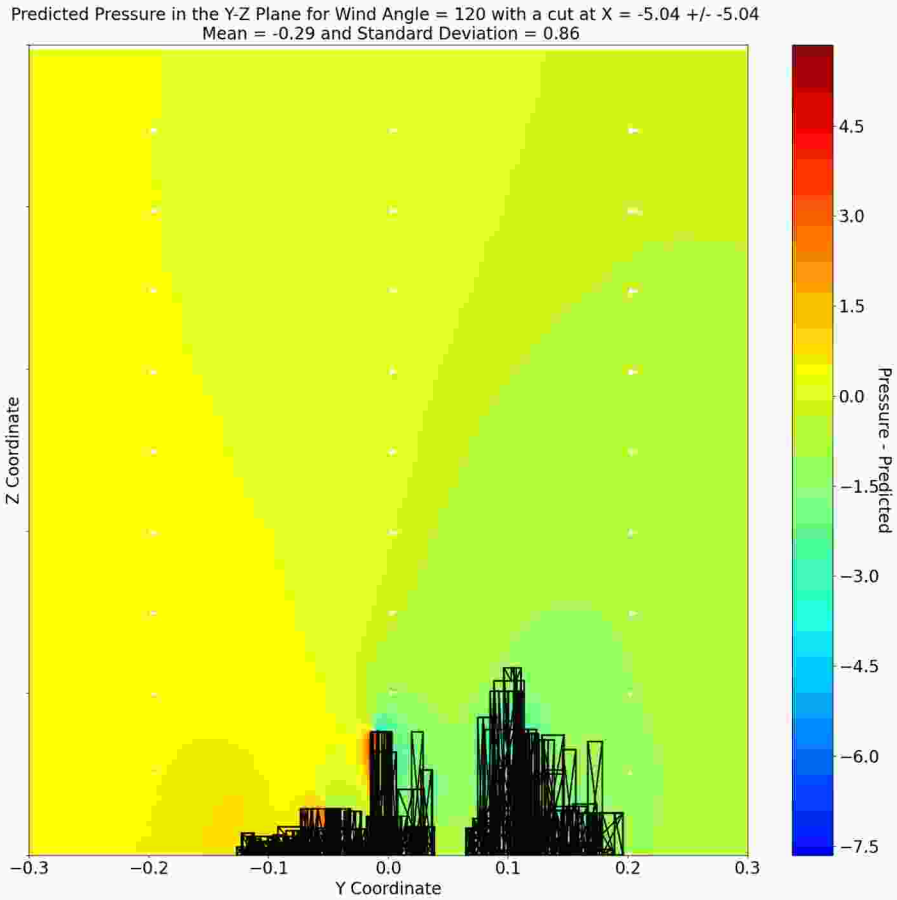
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



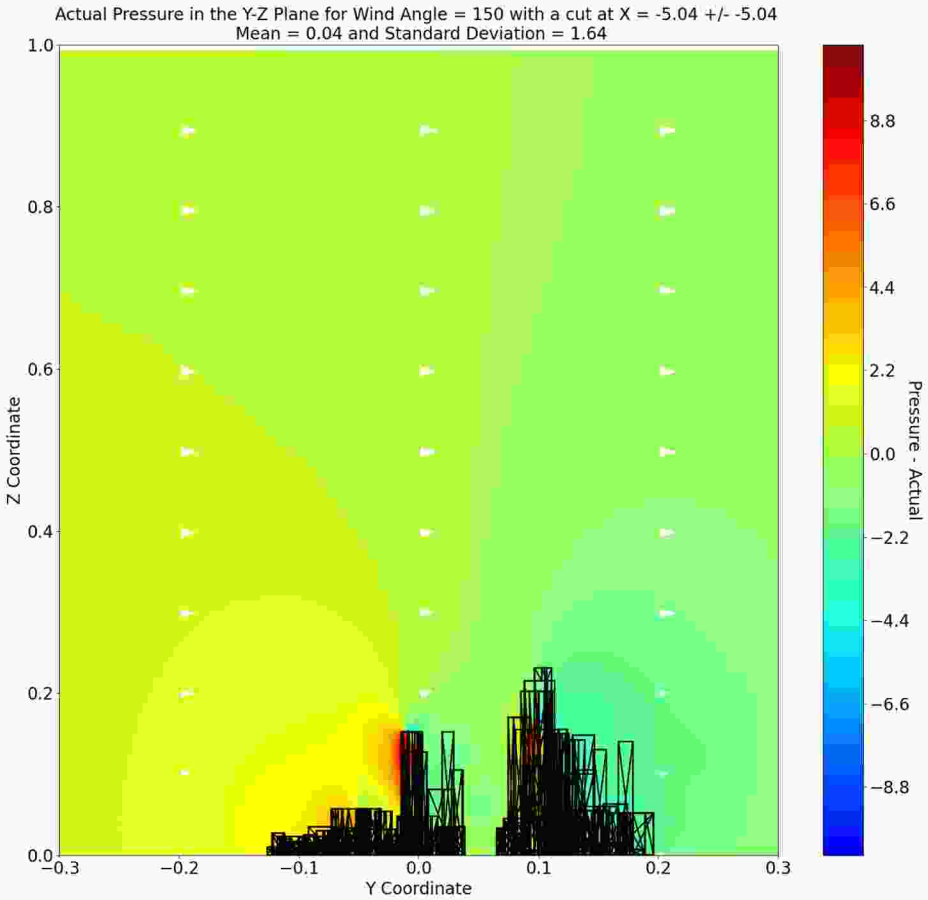


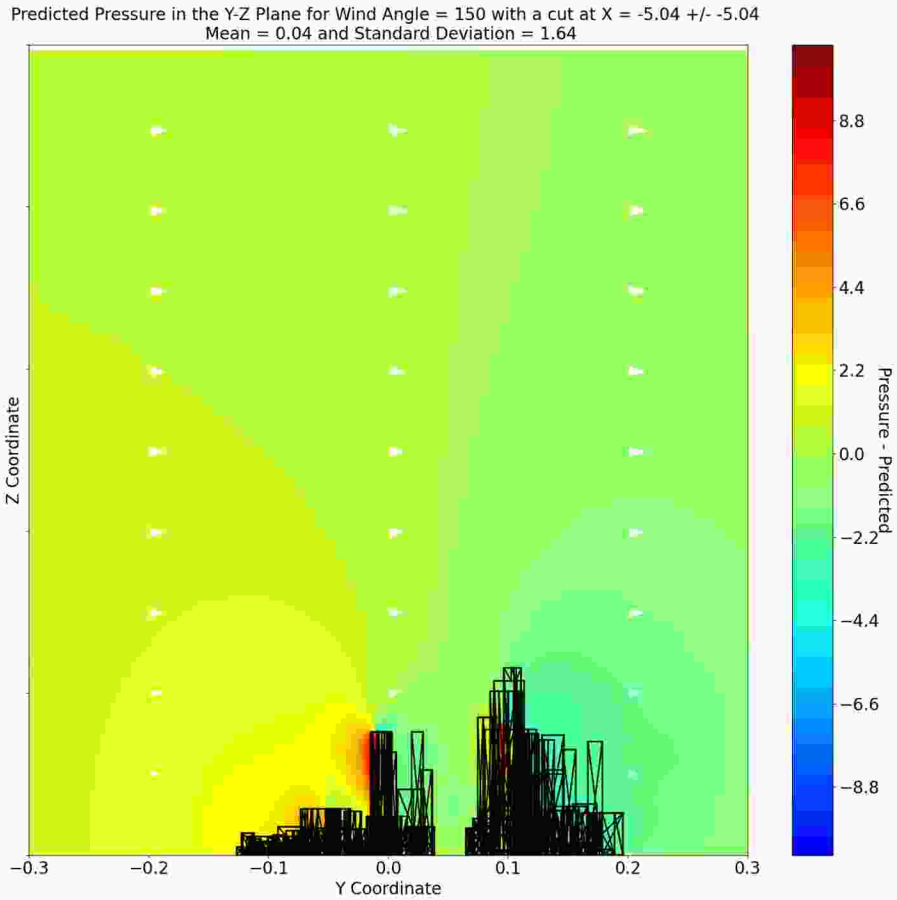
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



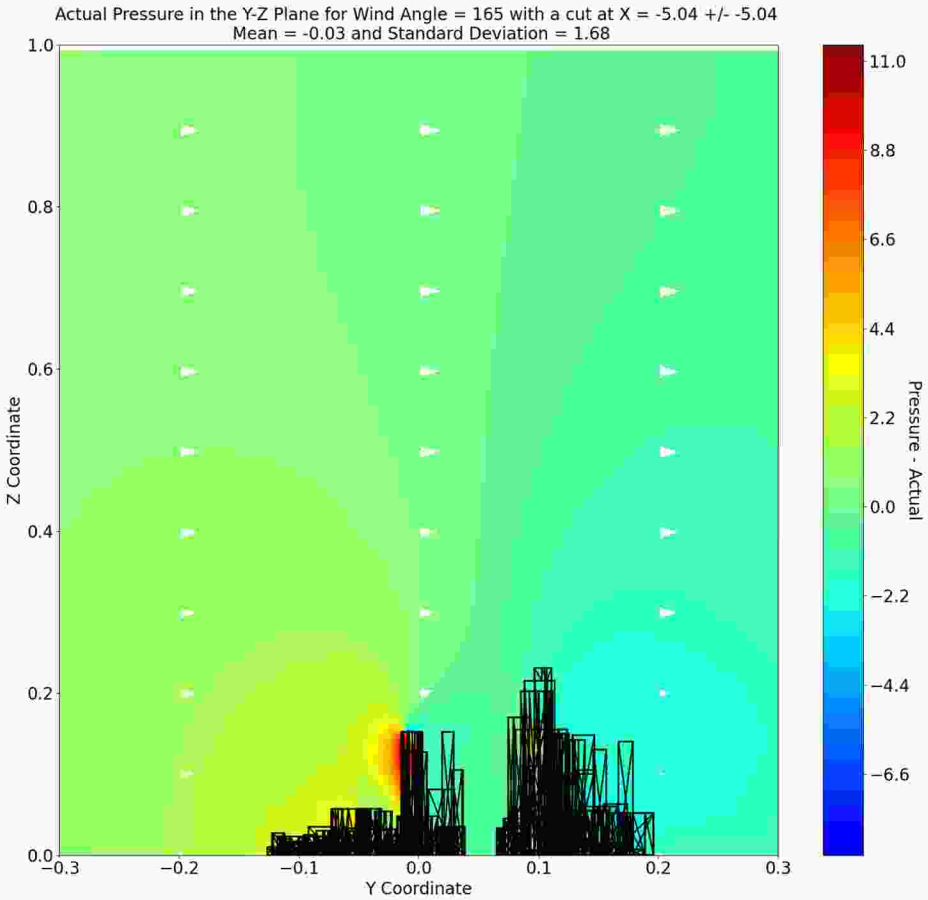


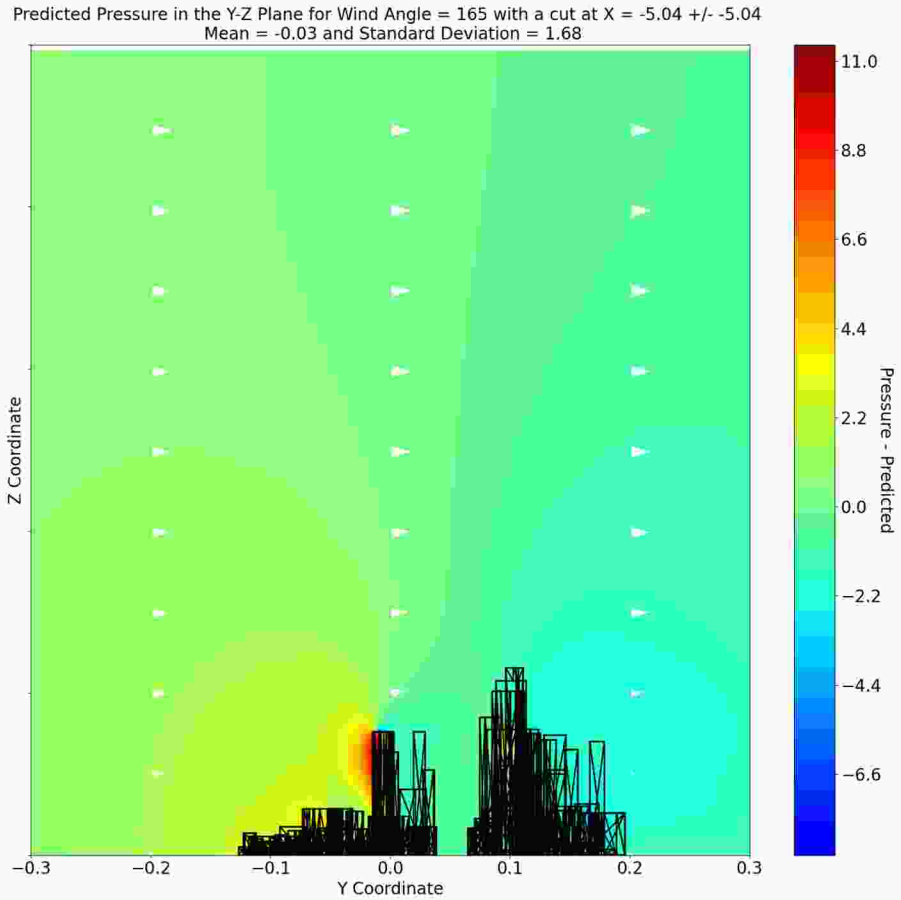
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



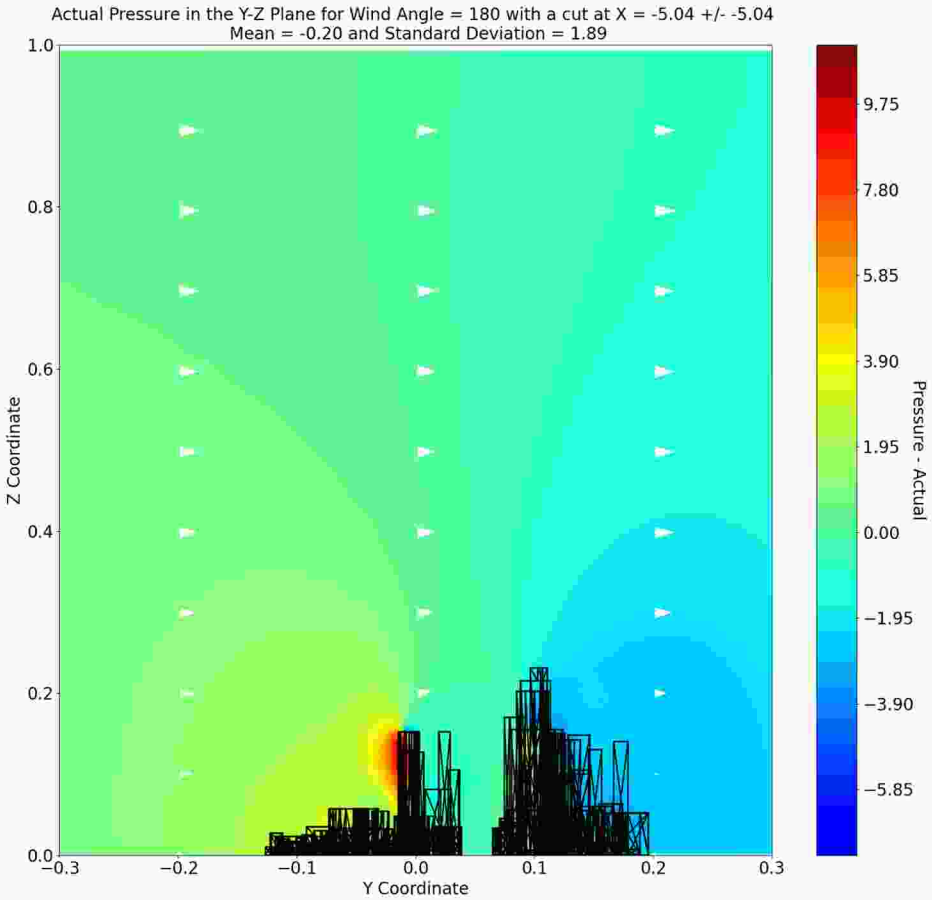


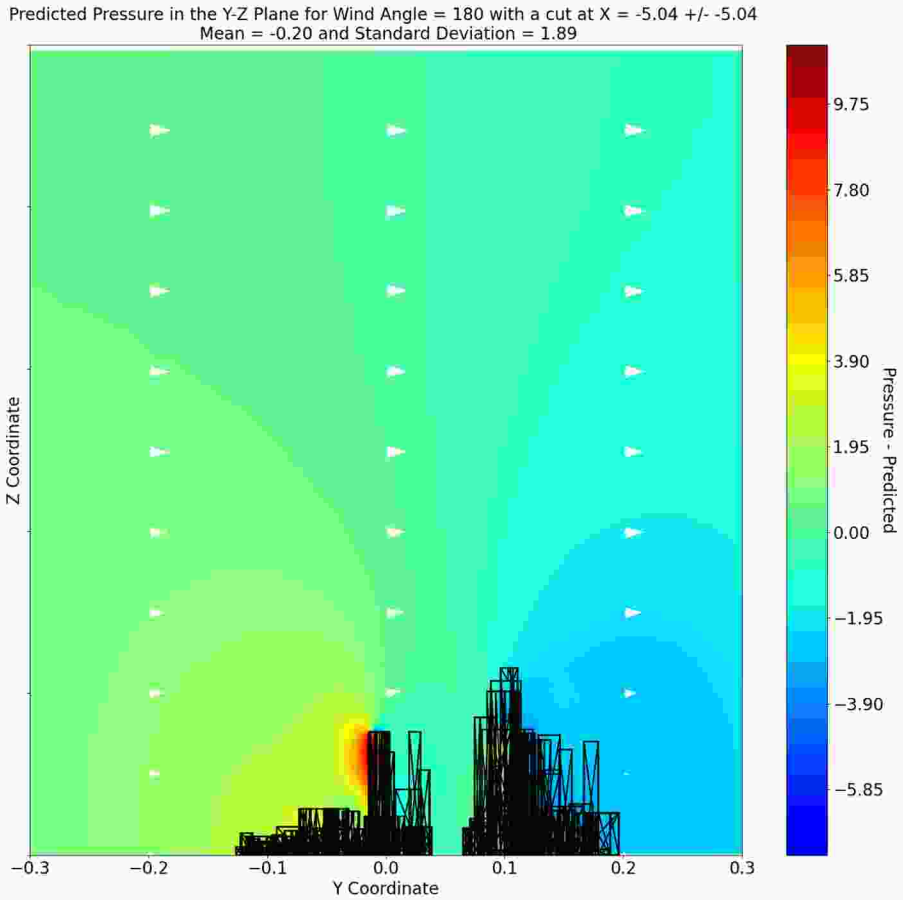
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



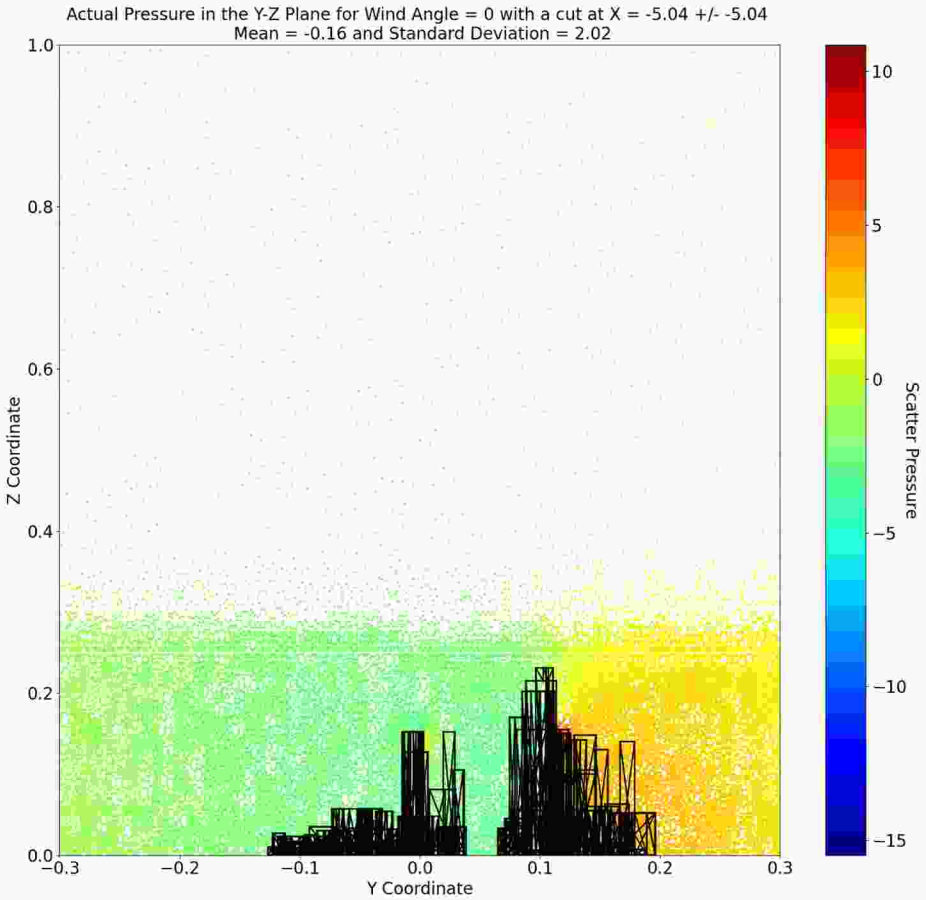


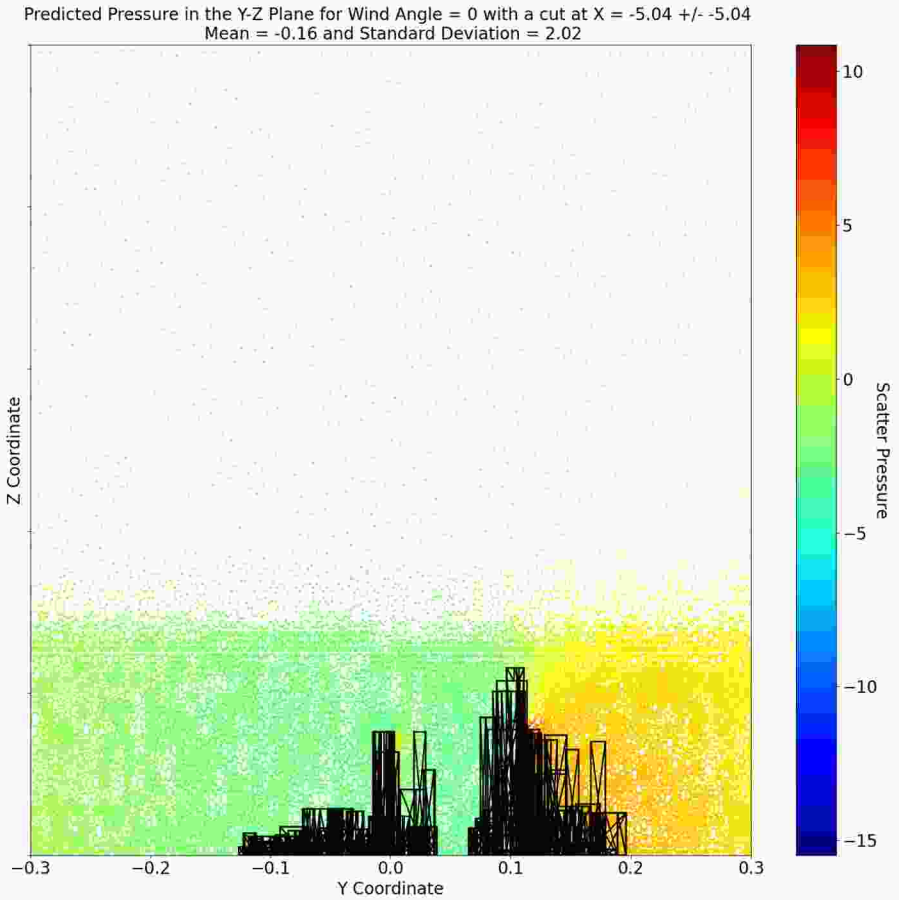
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



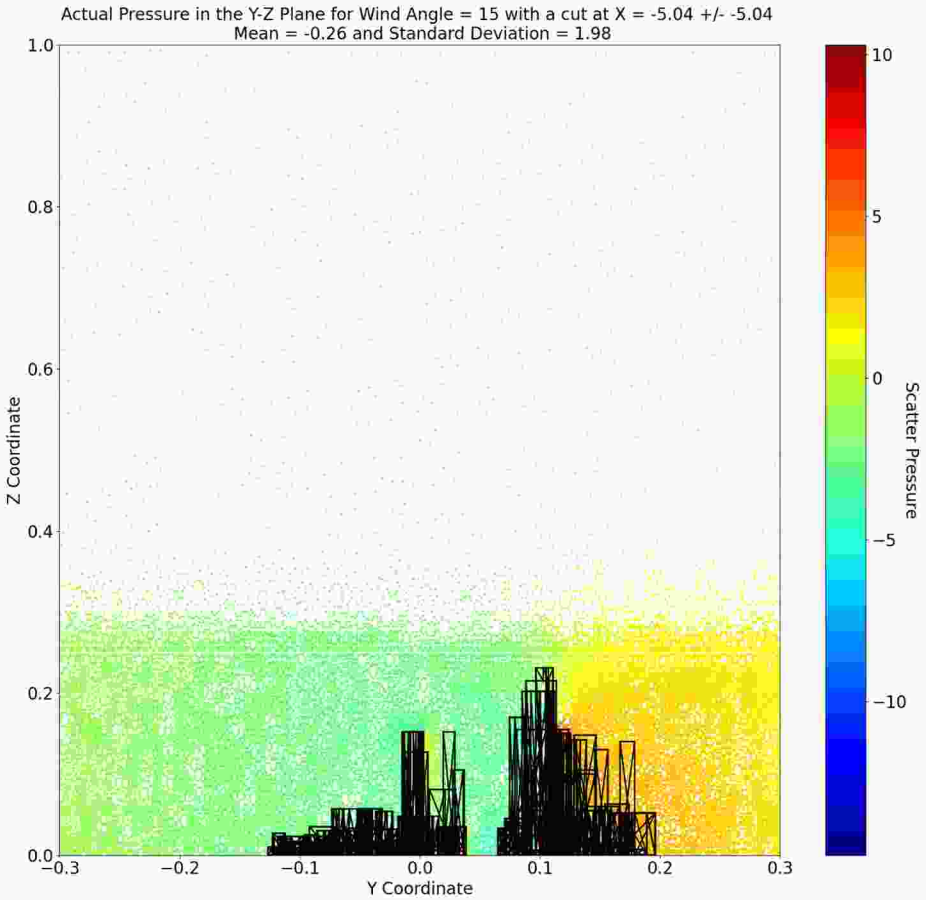


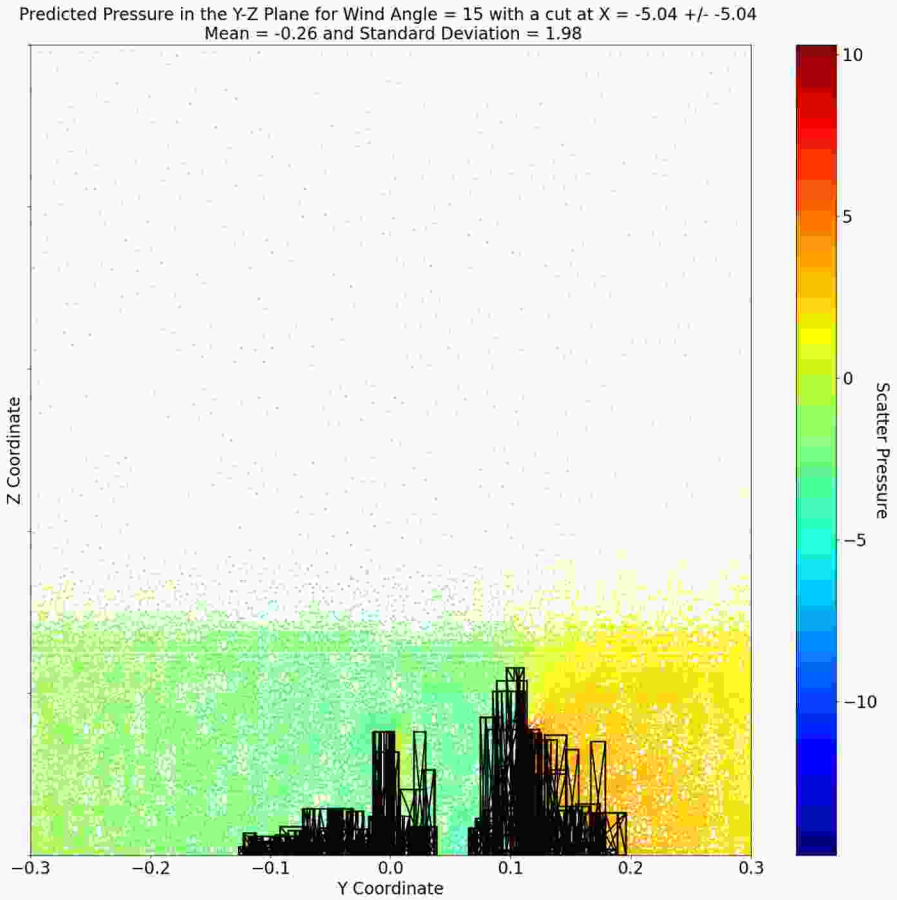
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



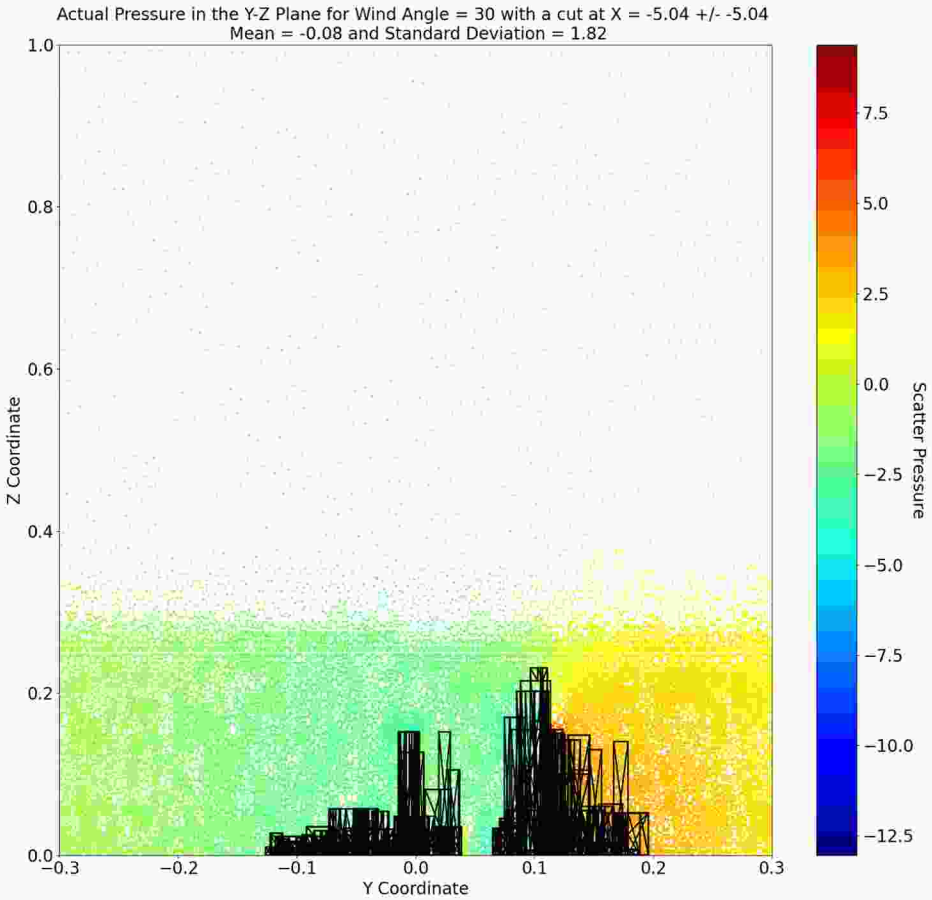


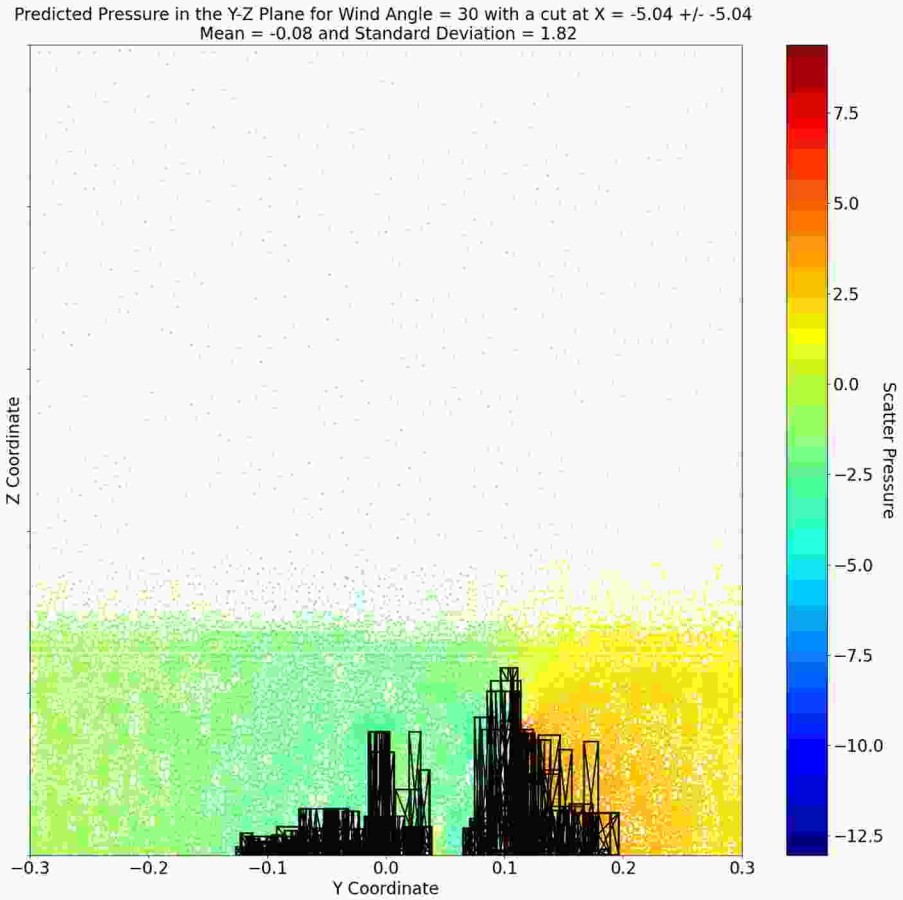
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



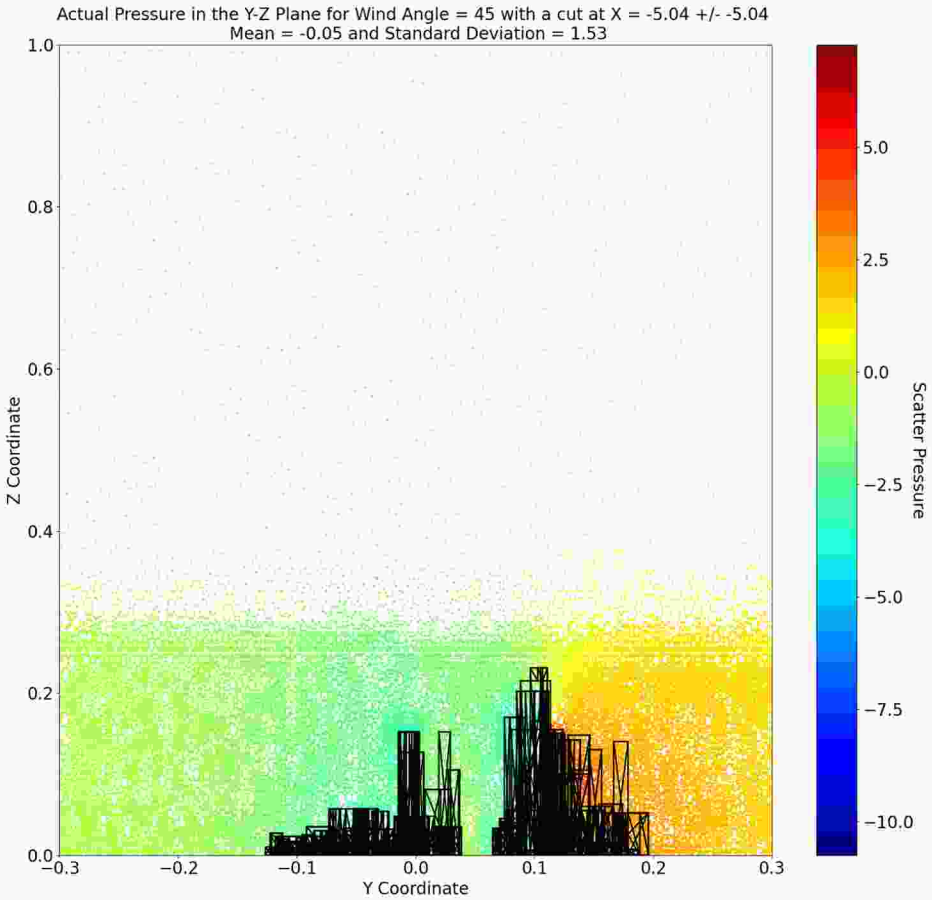


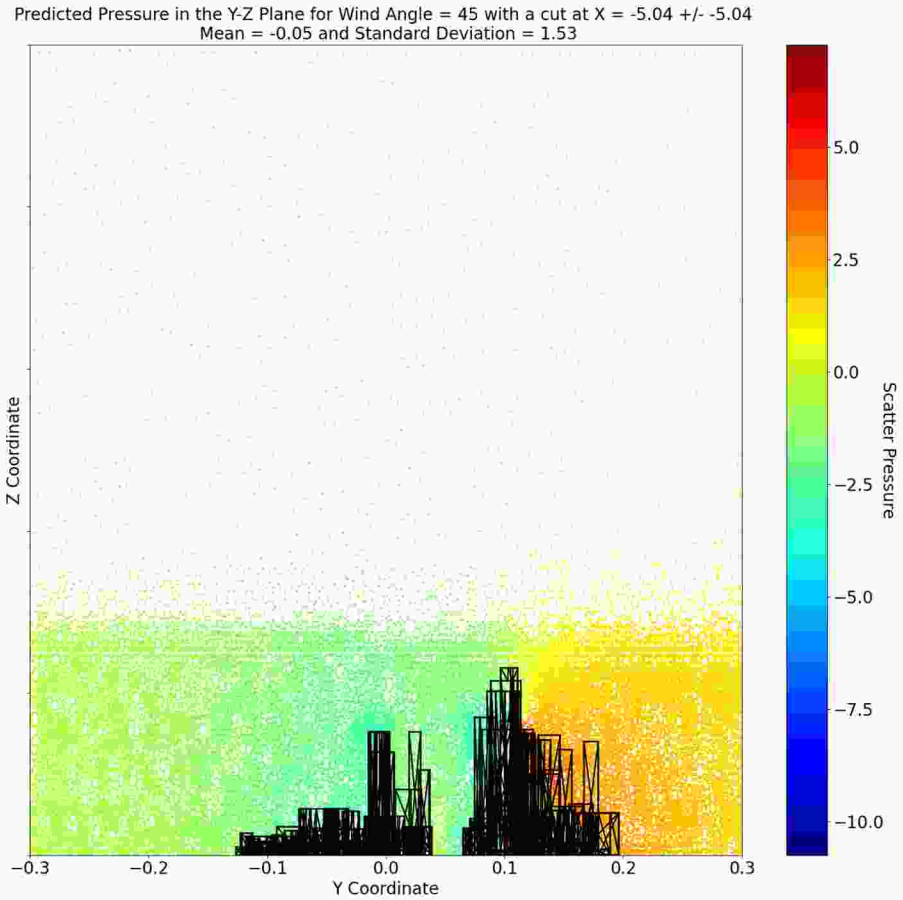
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



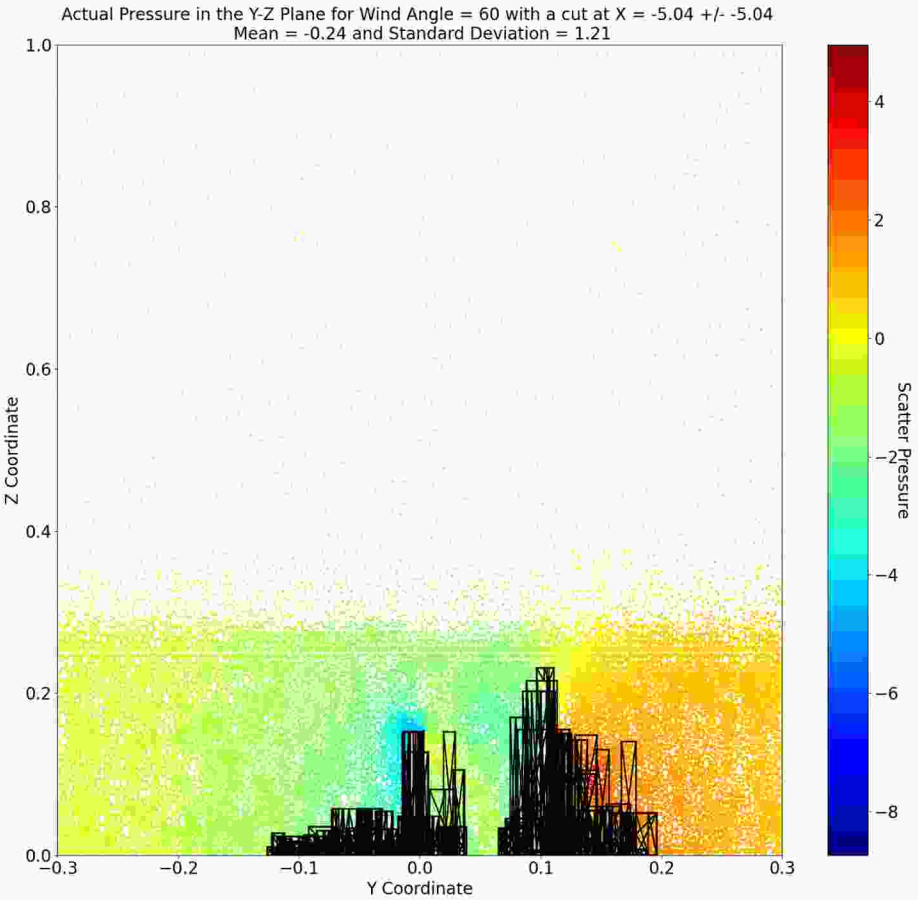


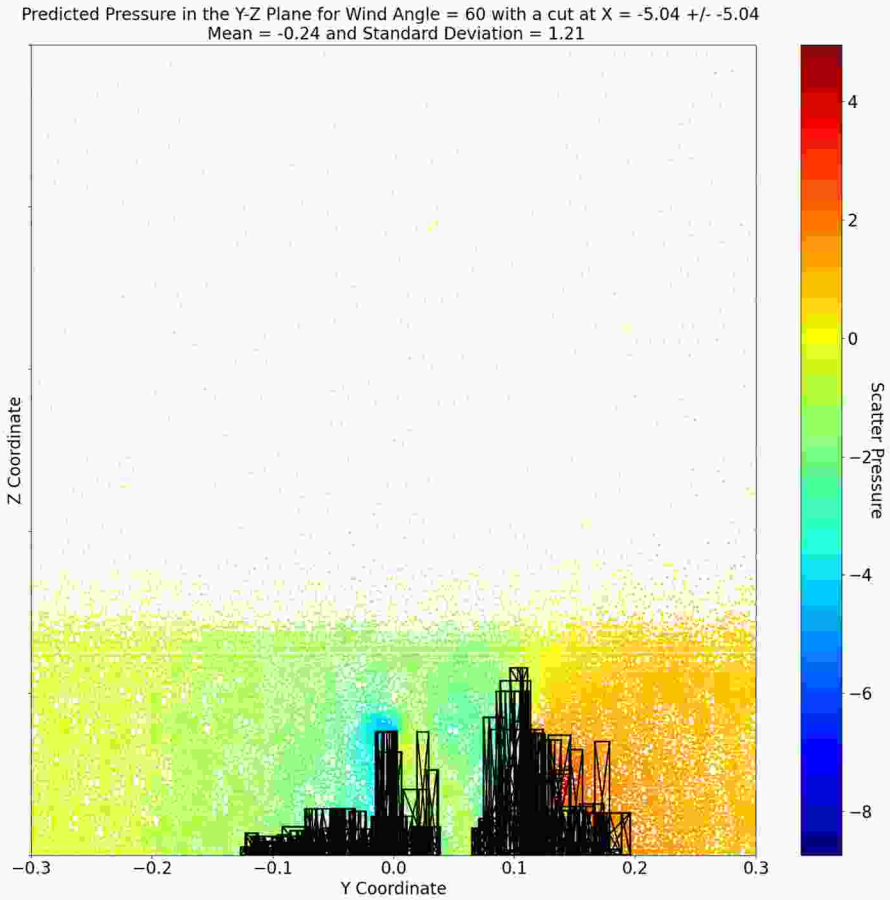
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



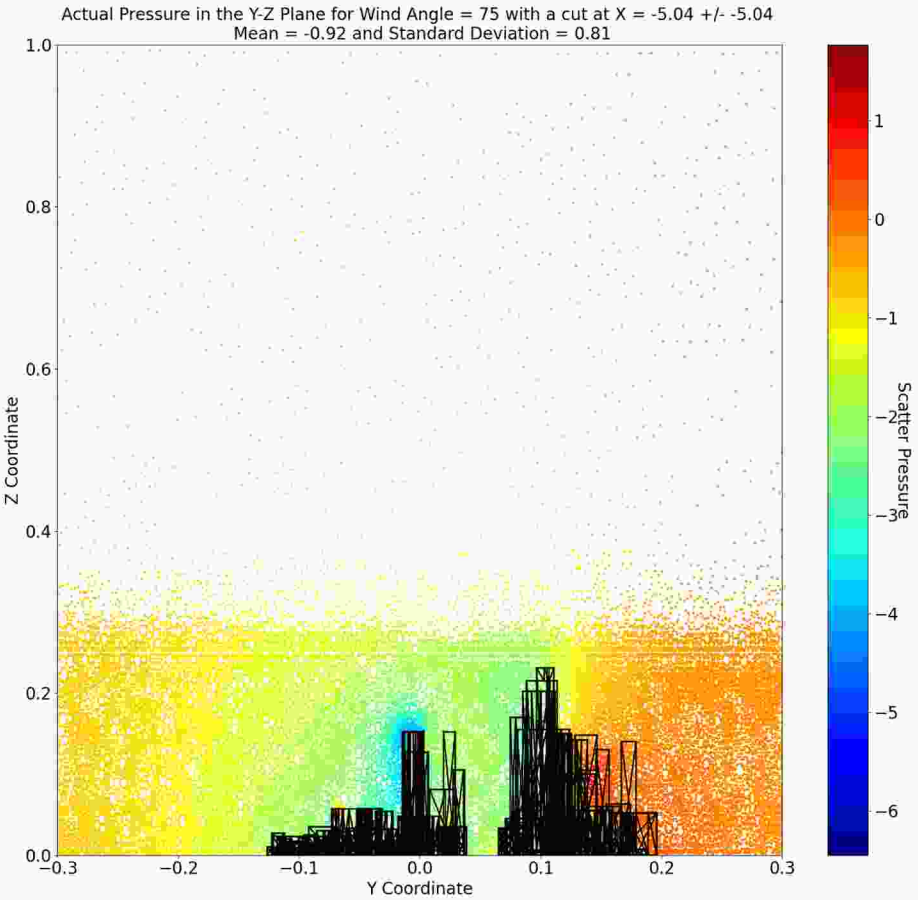


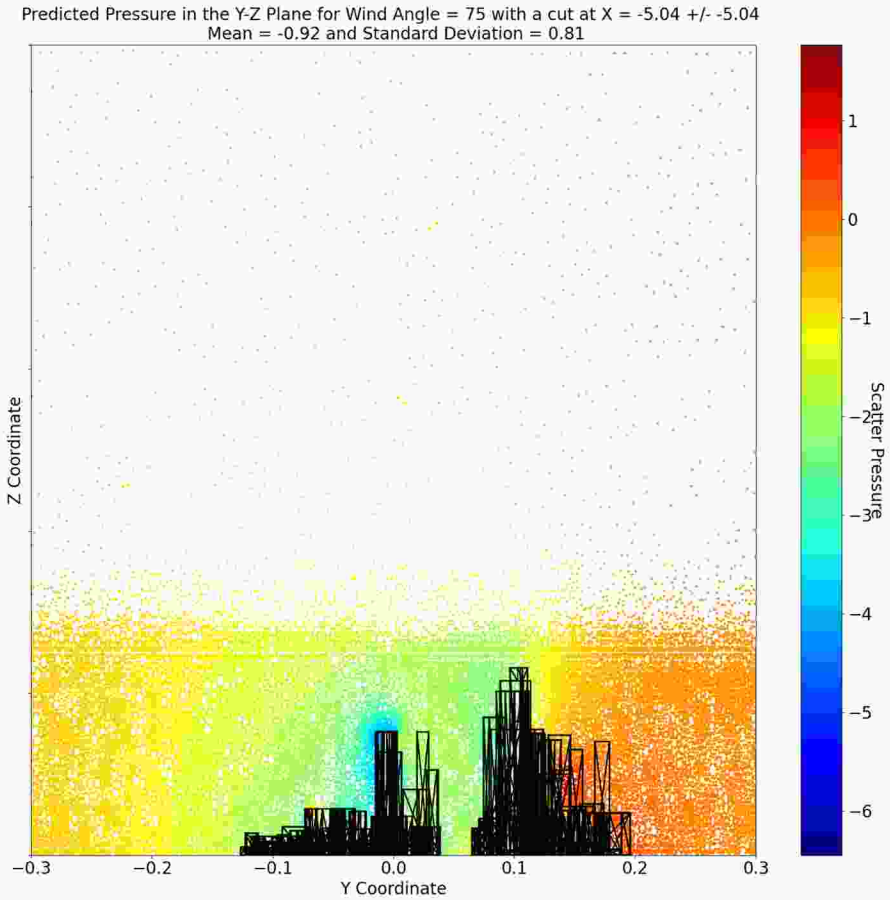
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



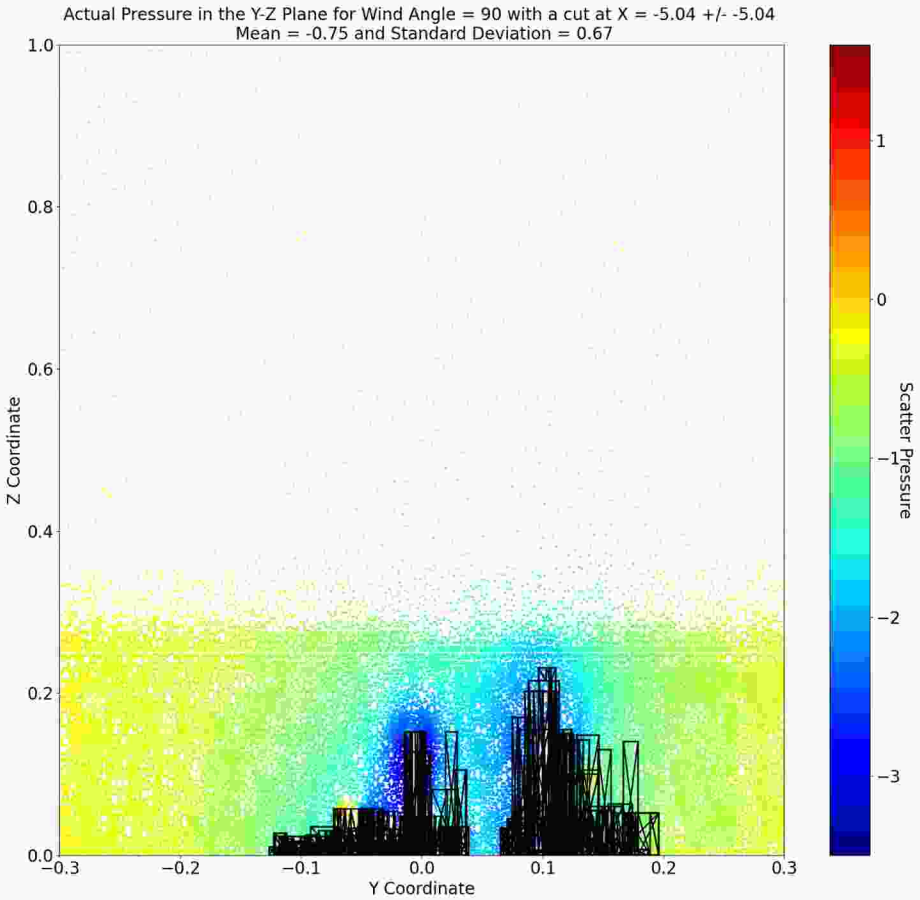


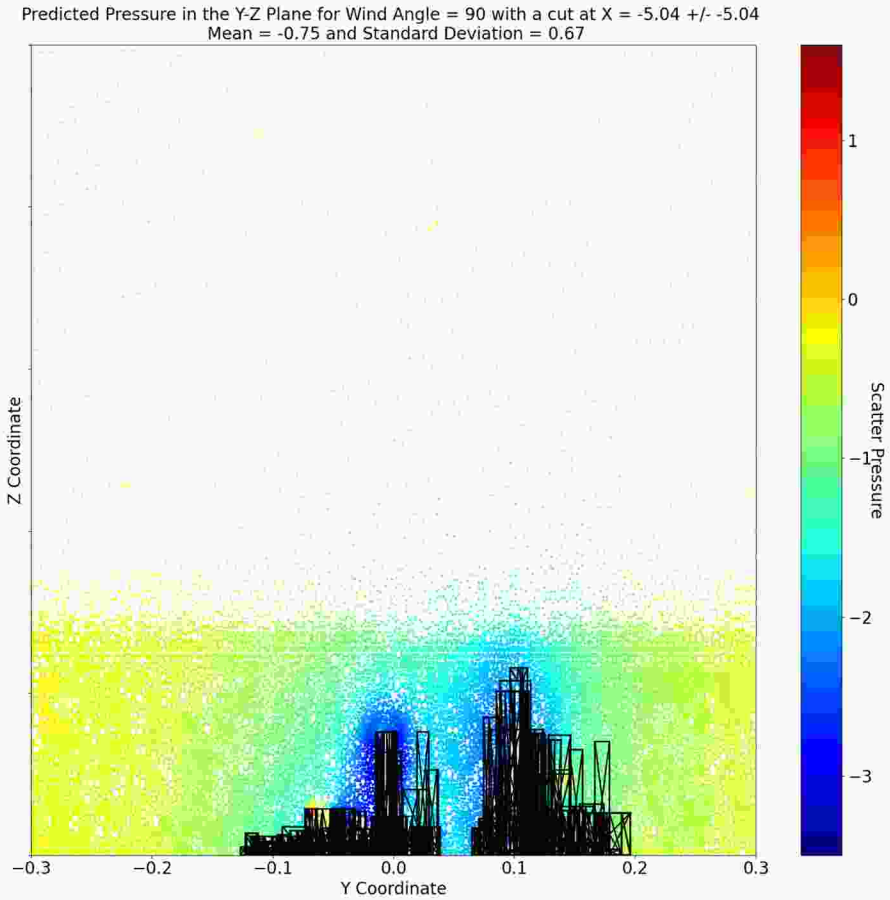
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



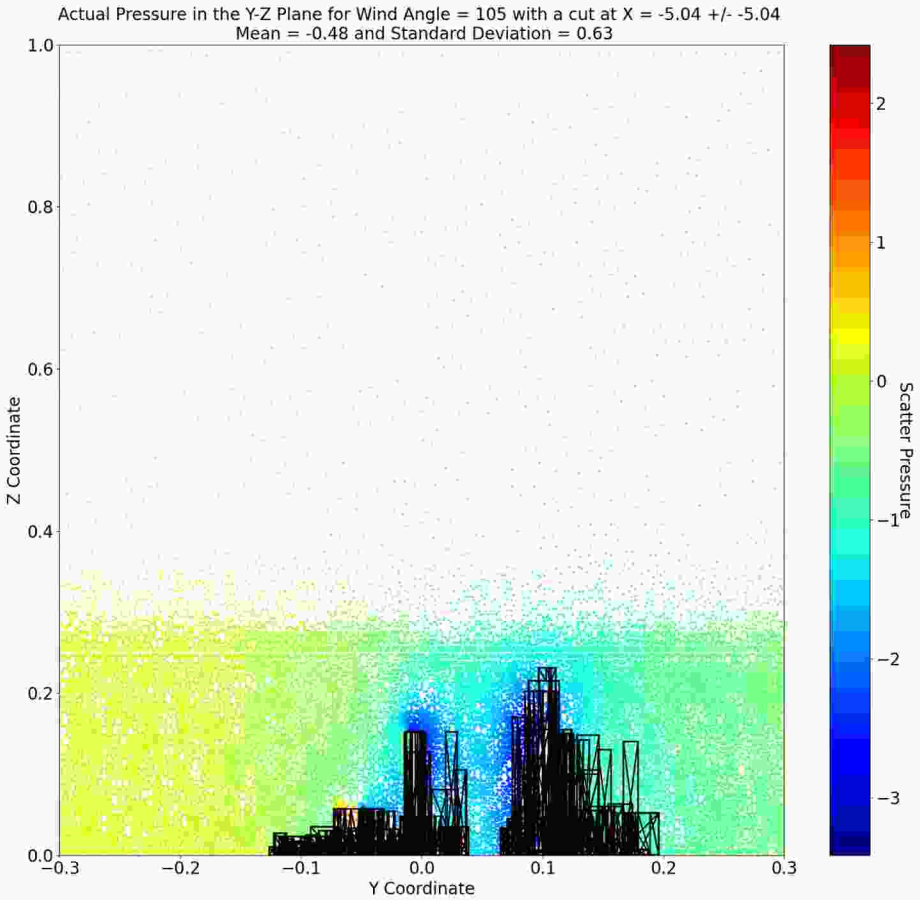


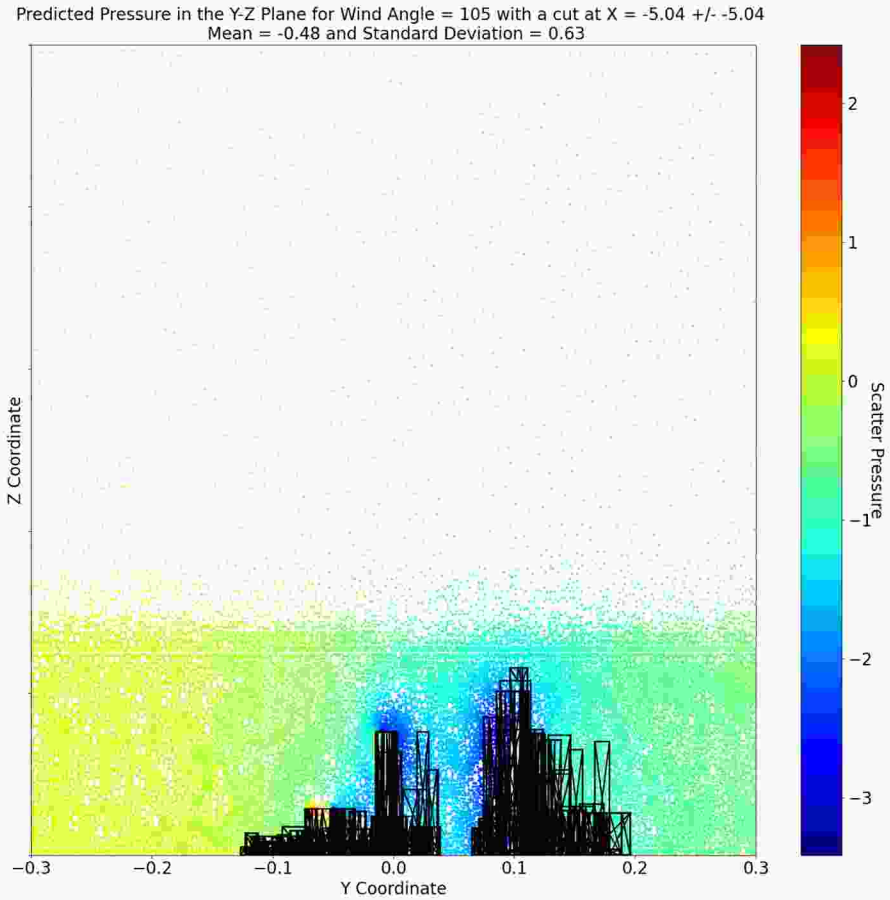
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



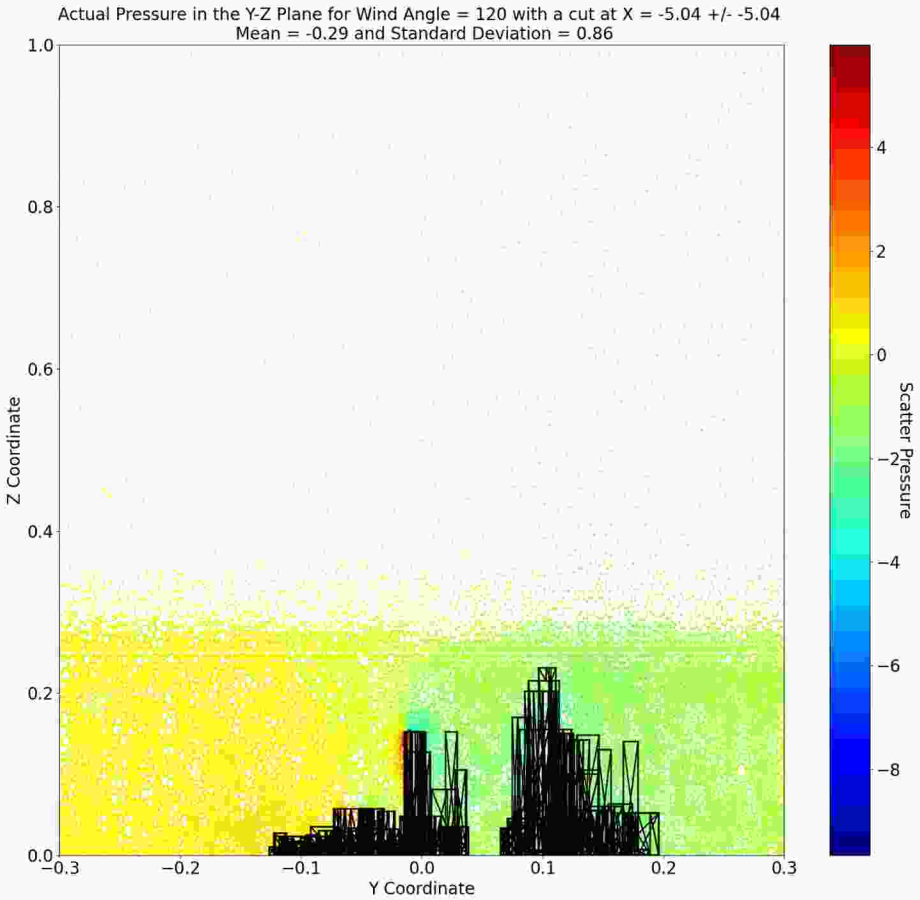


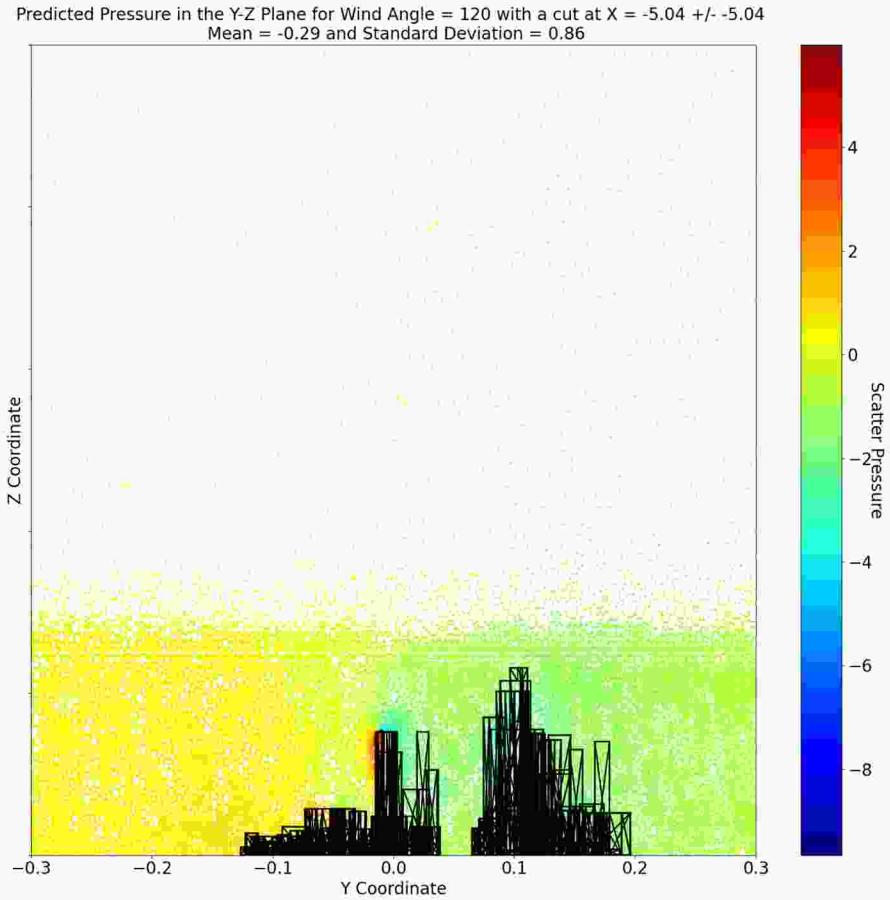
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



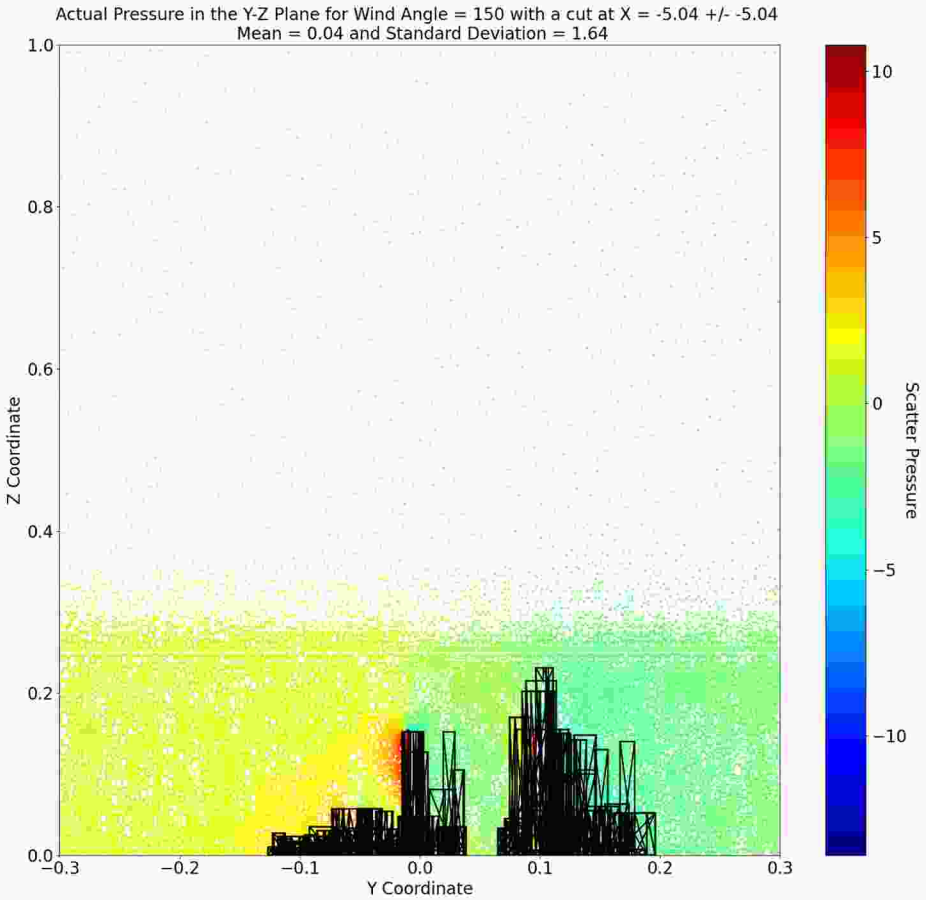


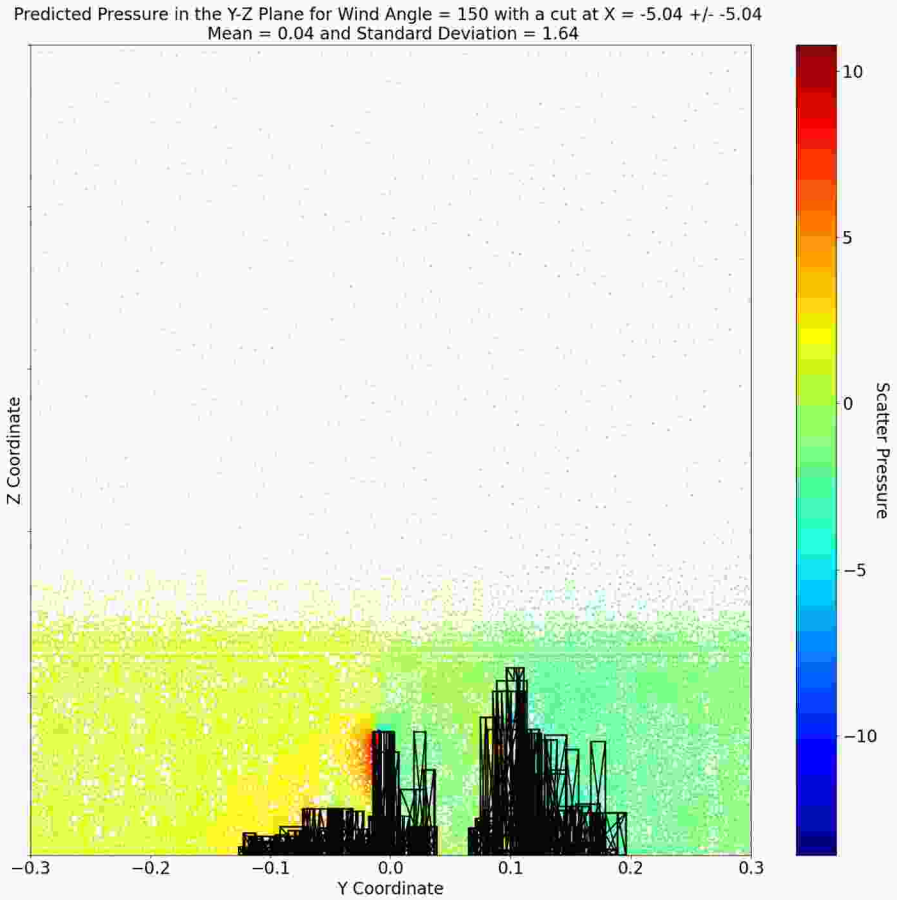
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



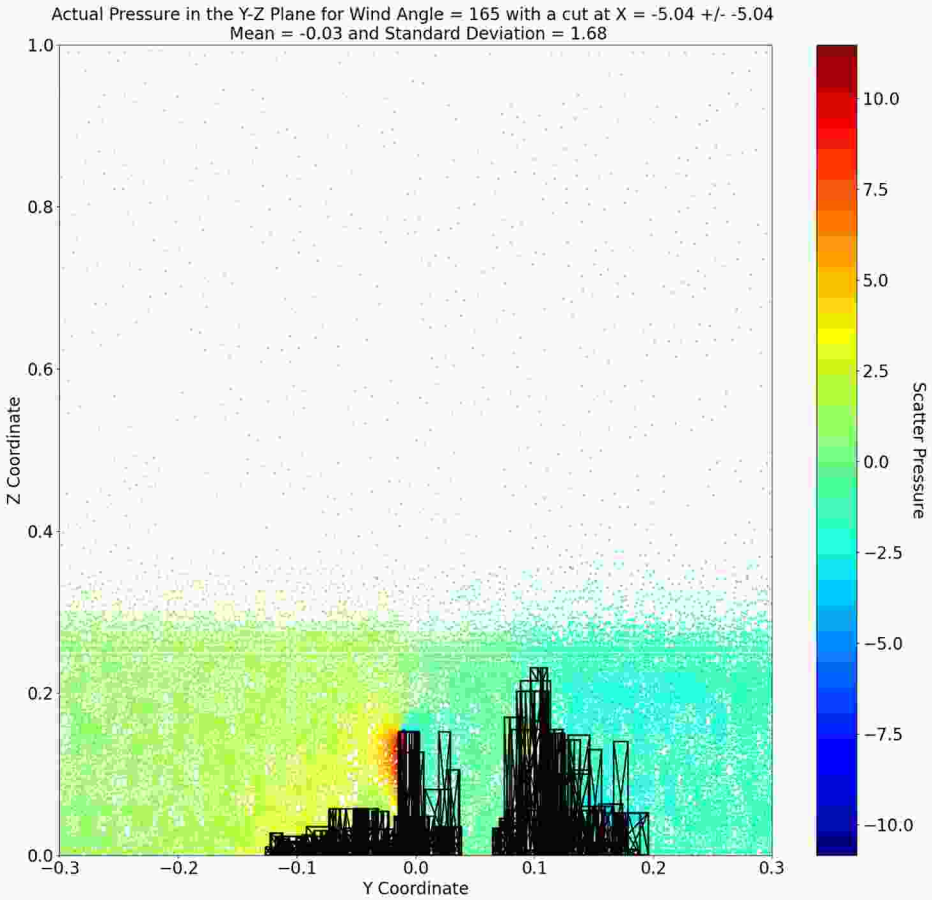


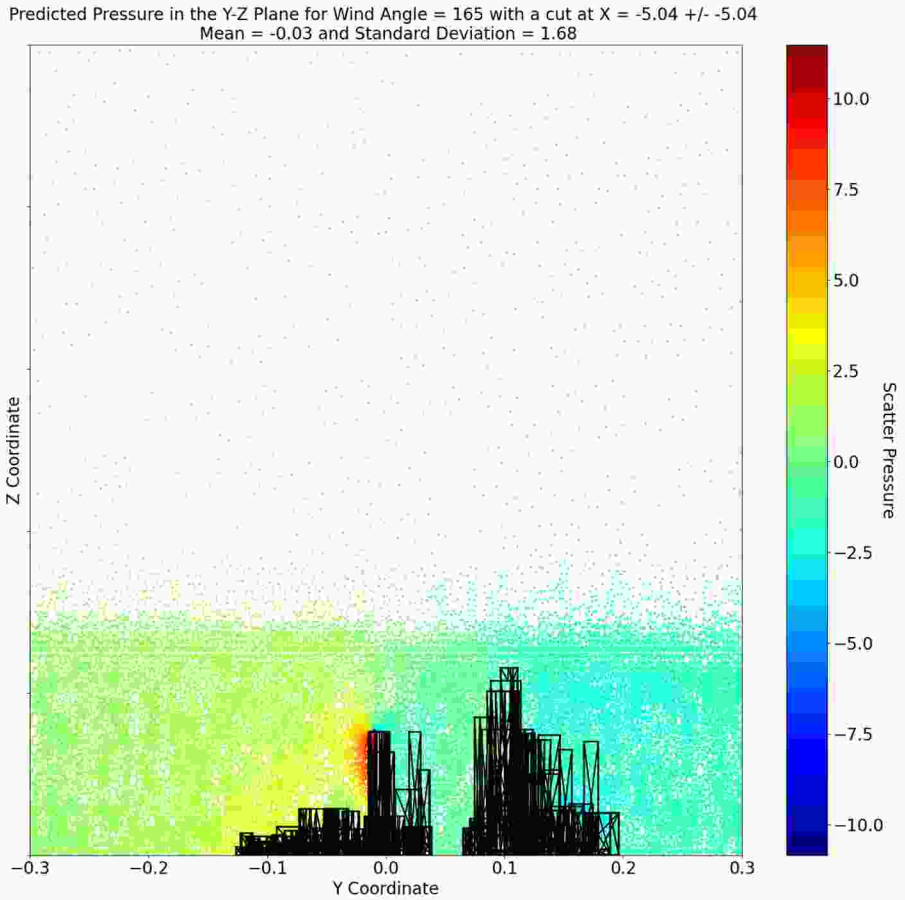
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



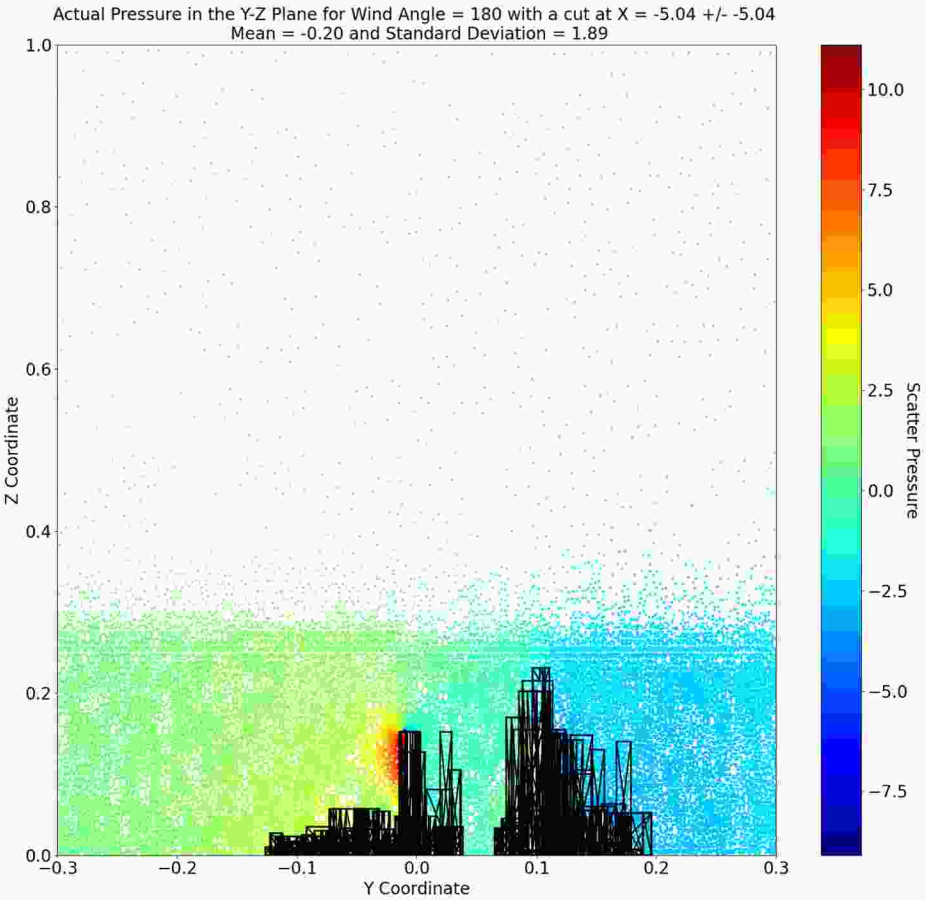


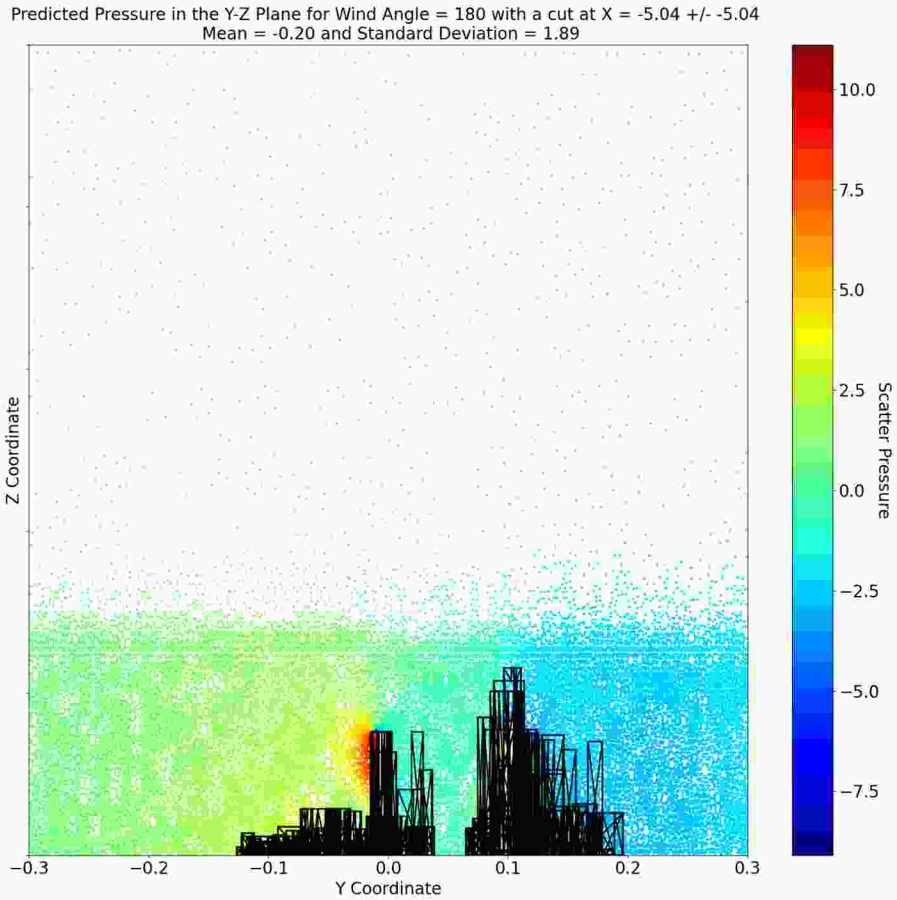
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

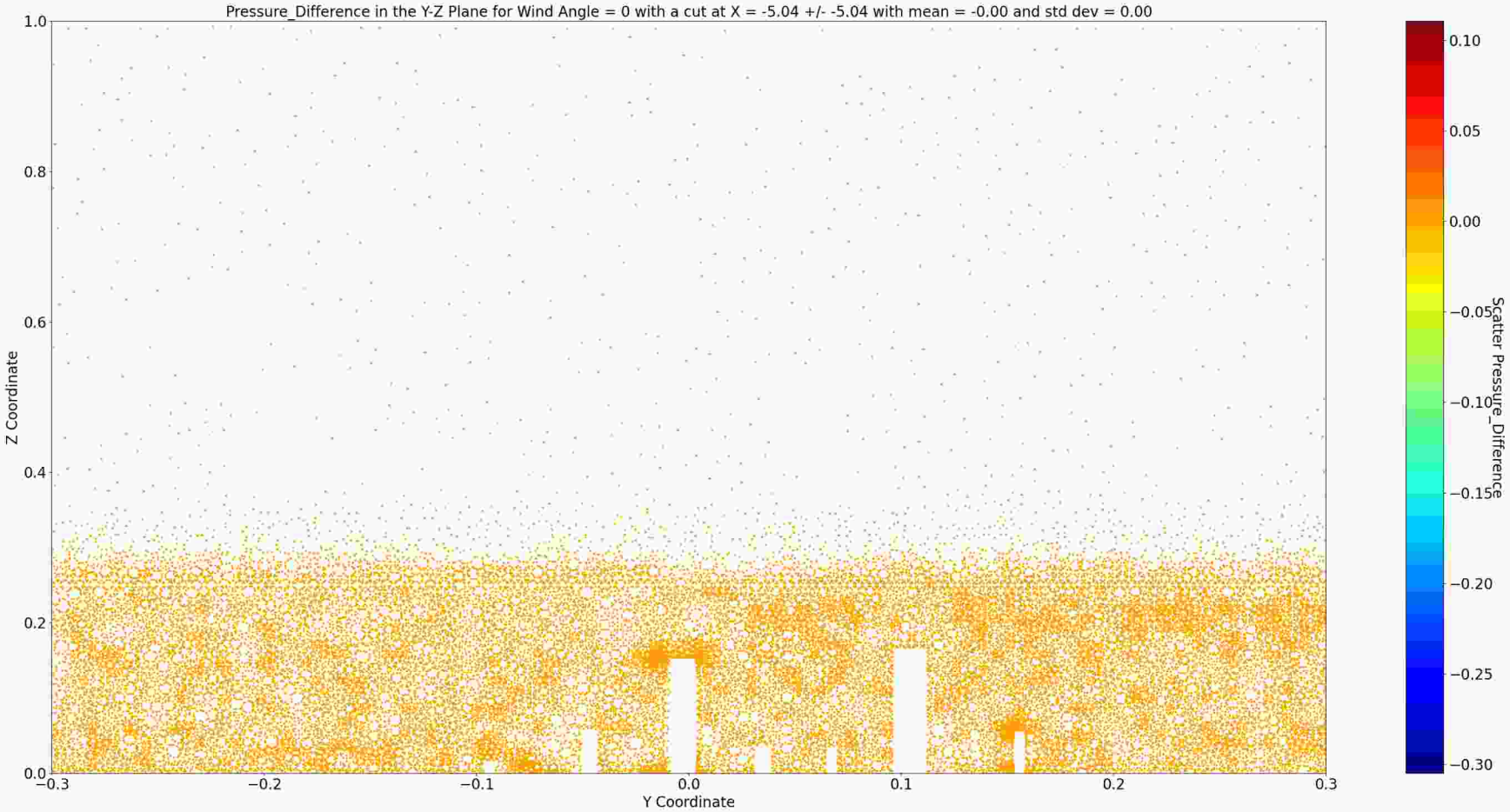


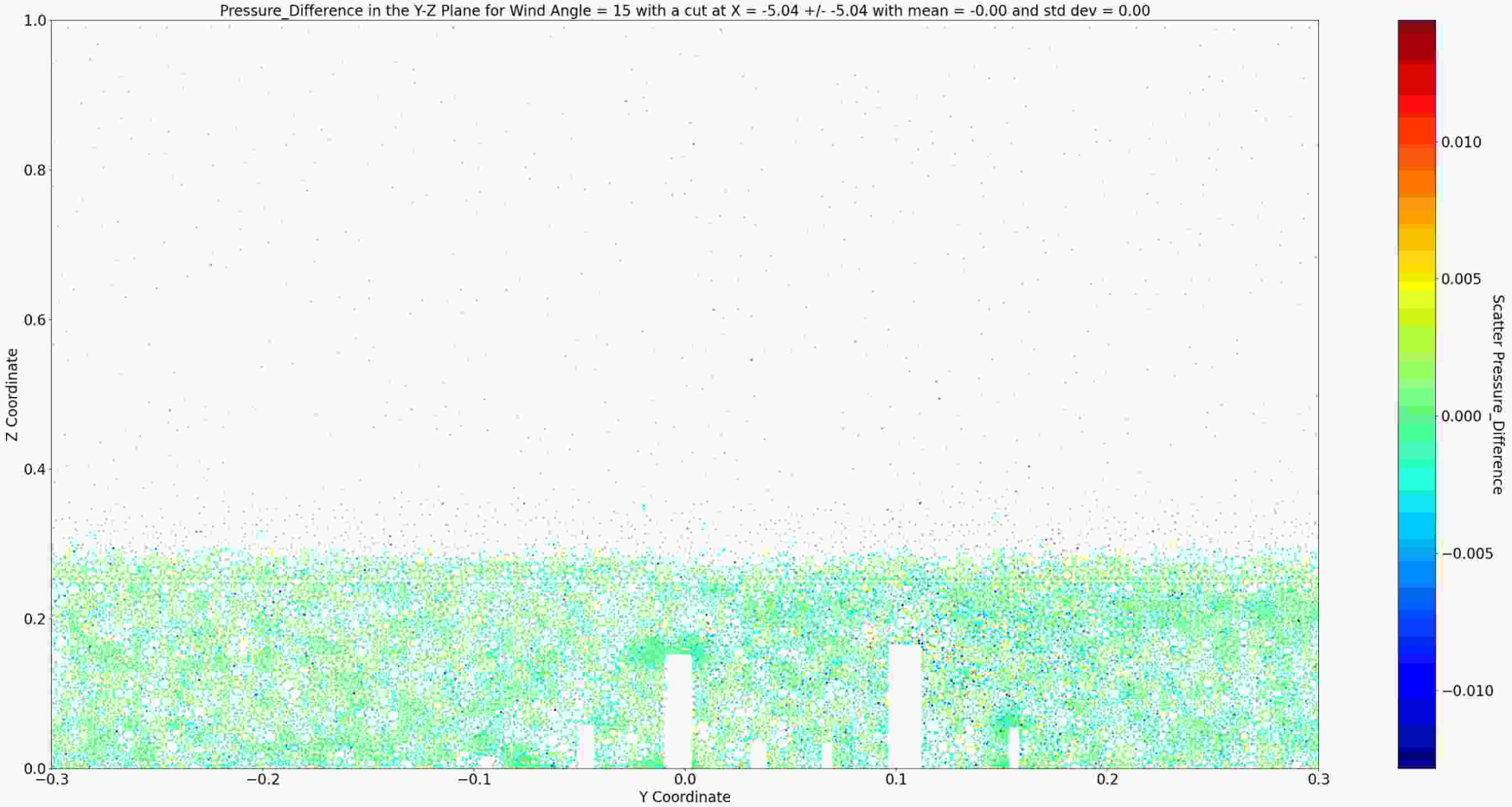


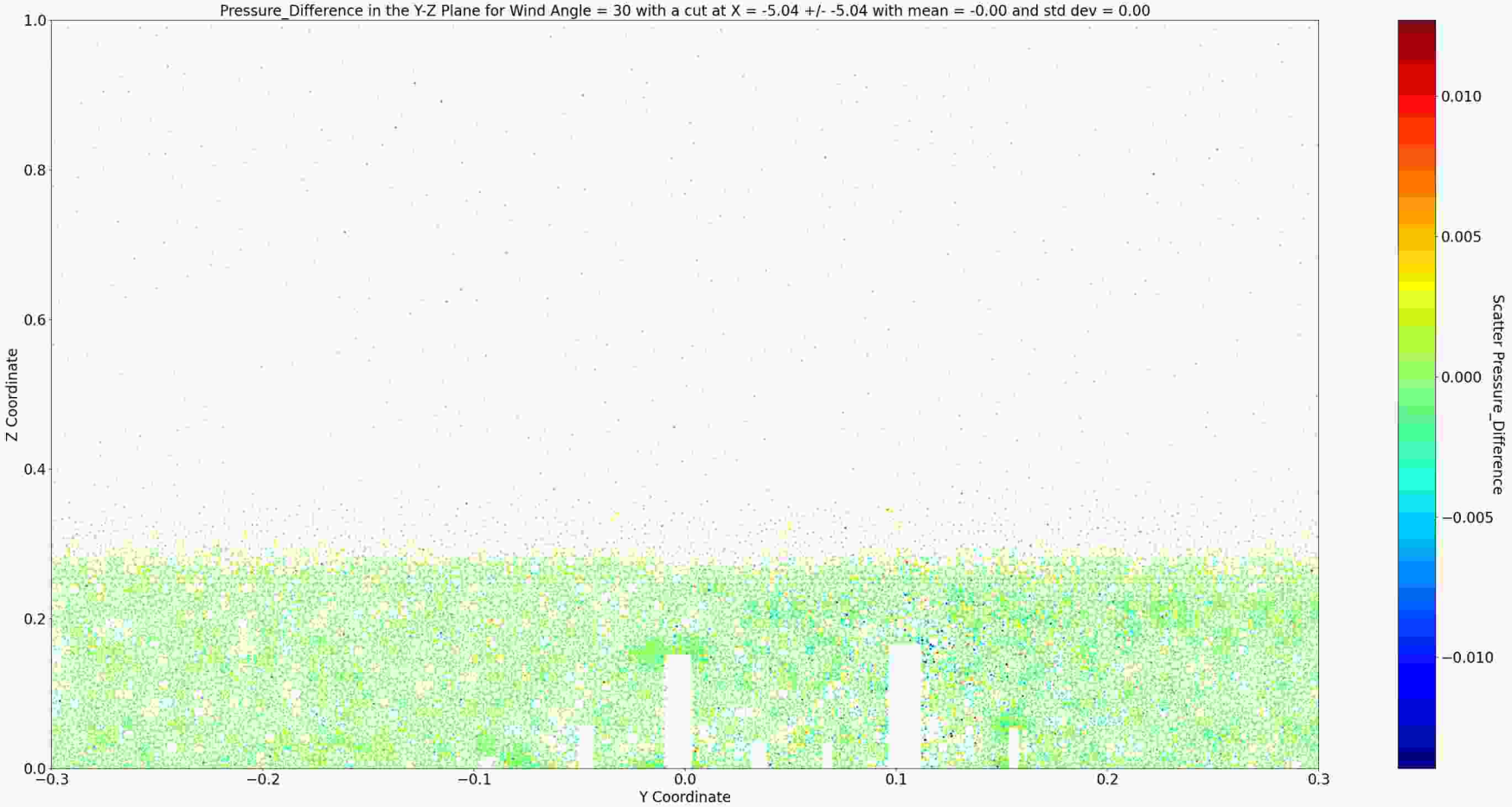
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

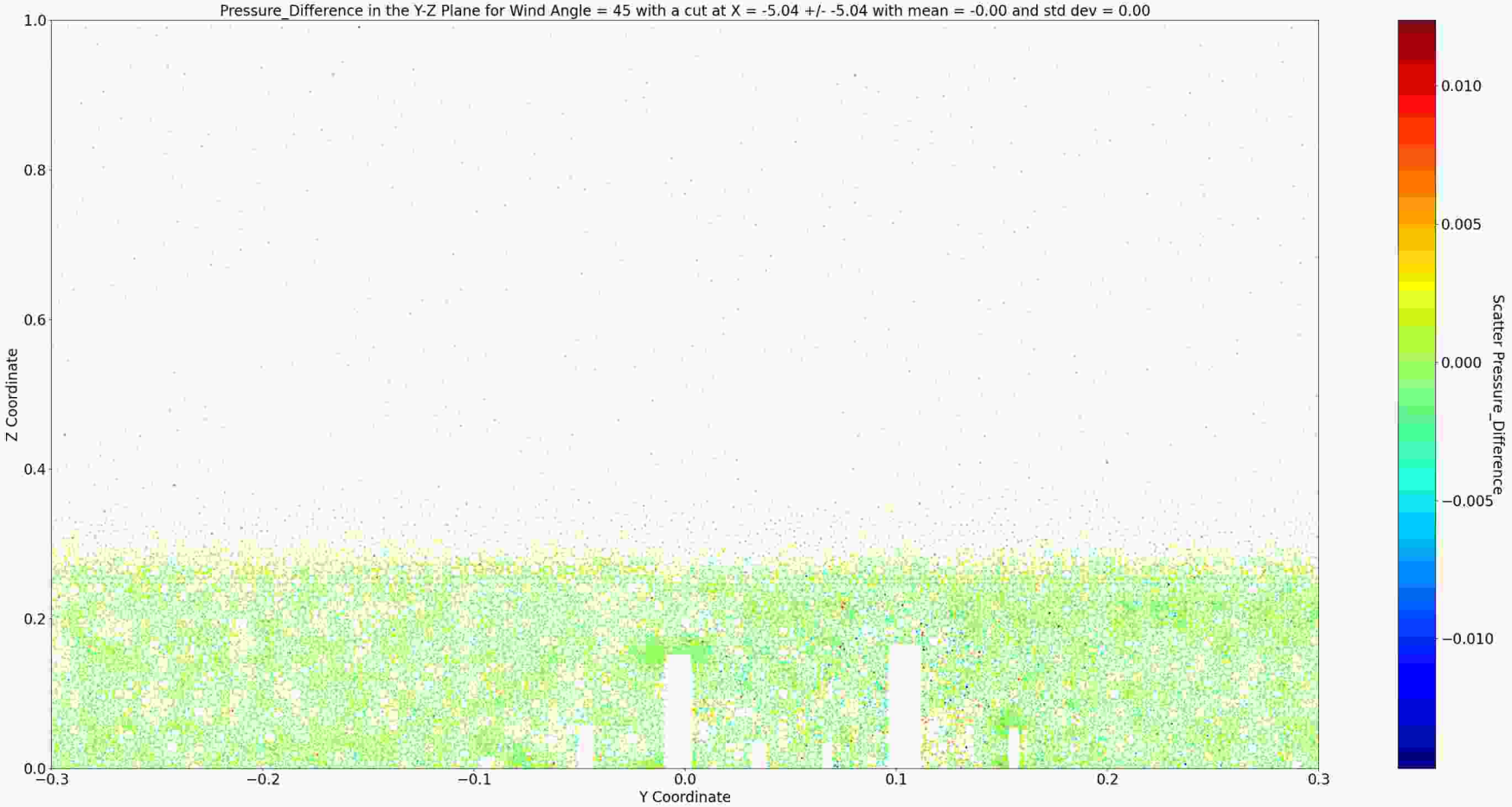


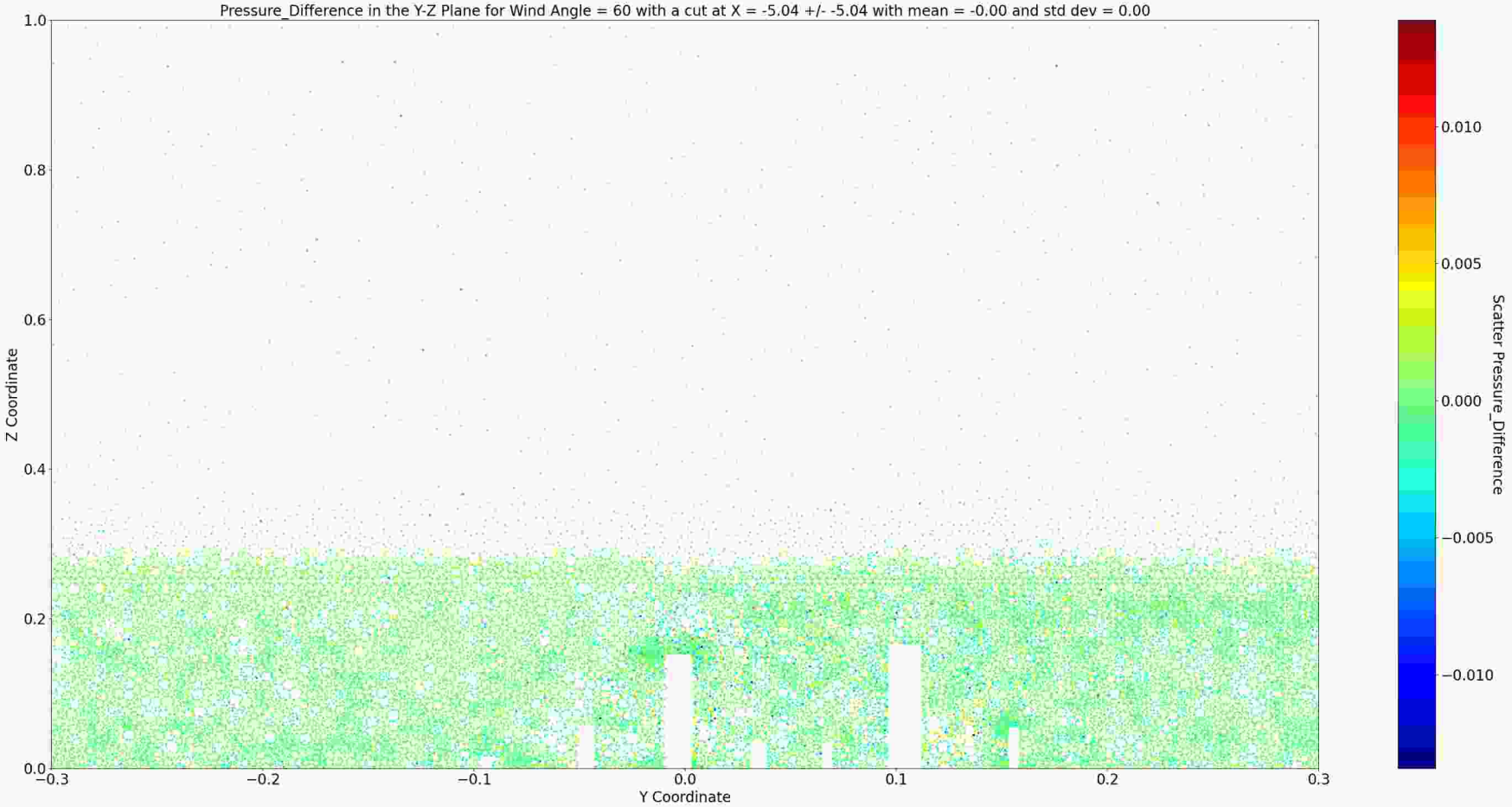


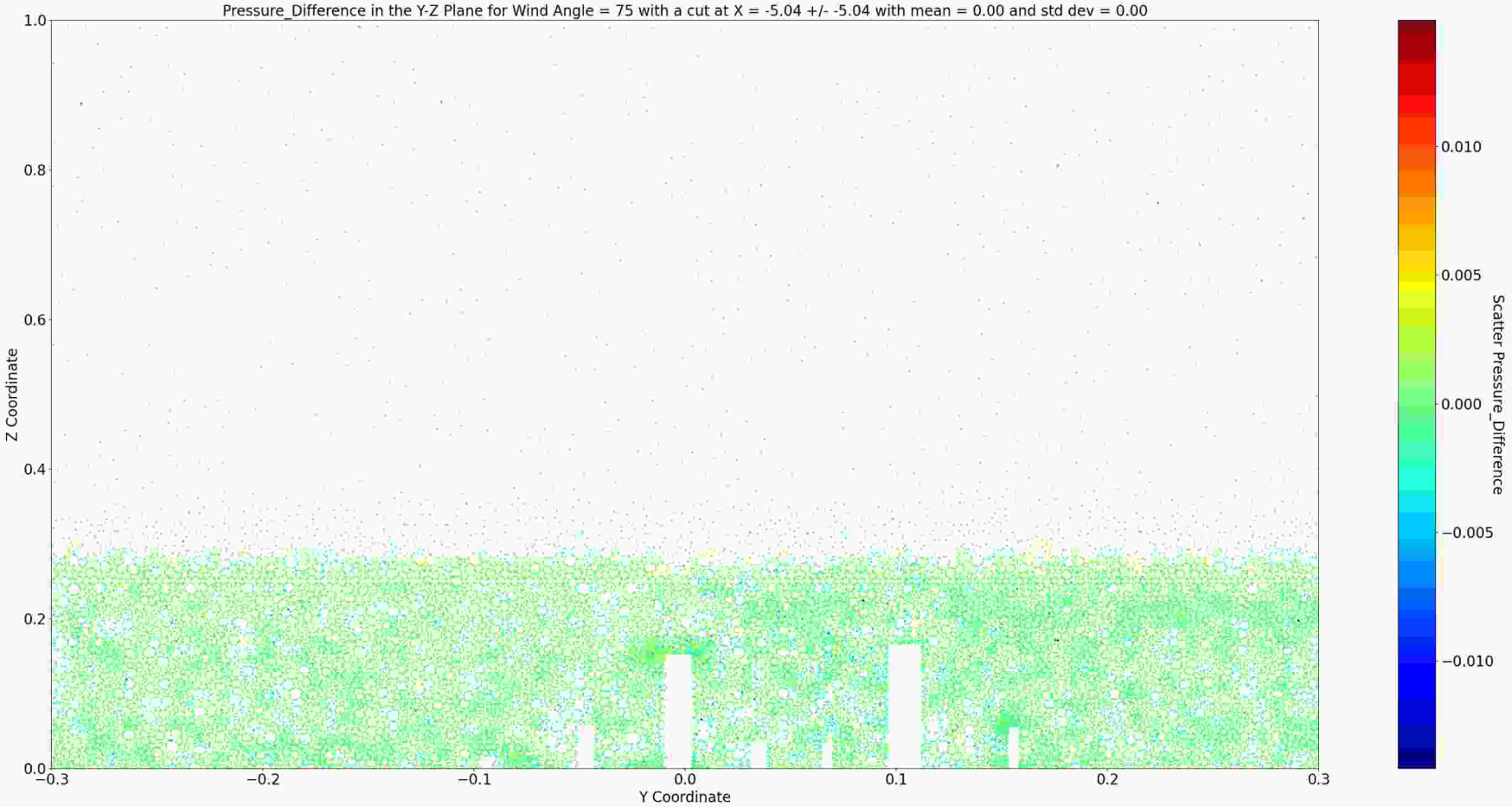

Pressure_Difference in the Y-Z Plane for Wind Angle = 0 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.10
0.05
0.00
−0.05
−0.10
−0.15
−0.20
−0.25
−0.30

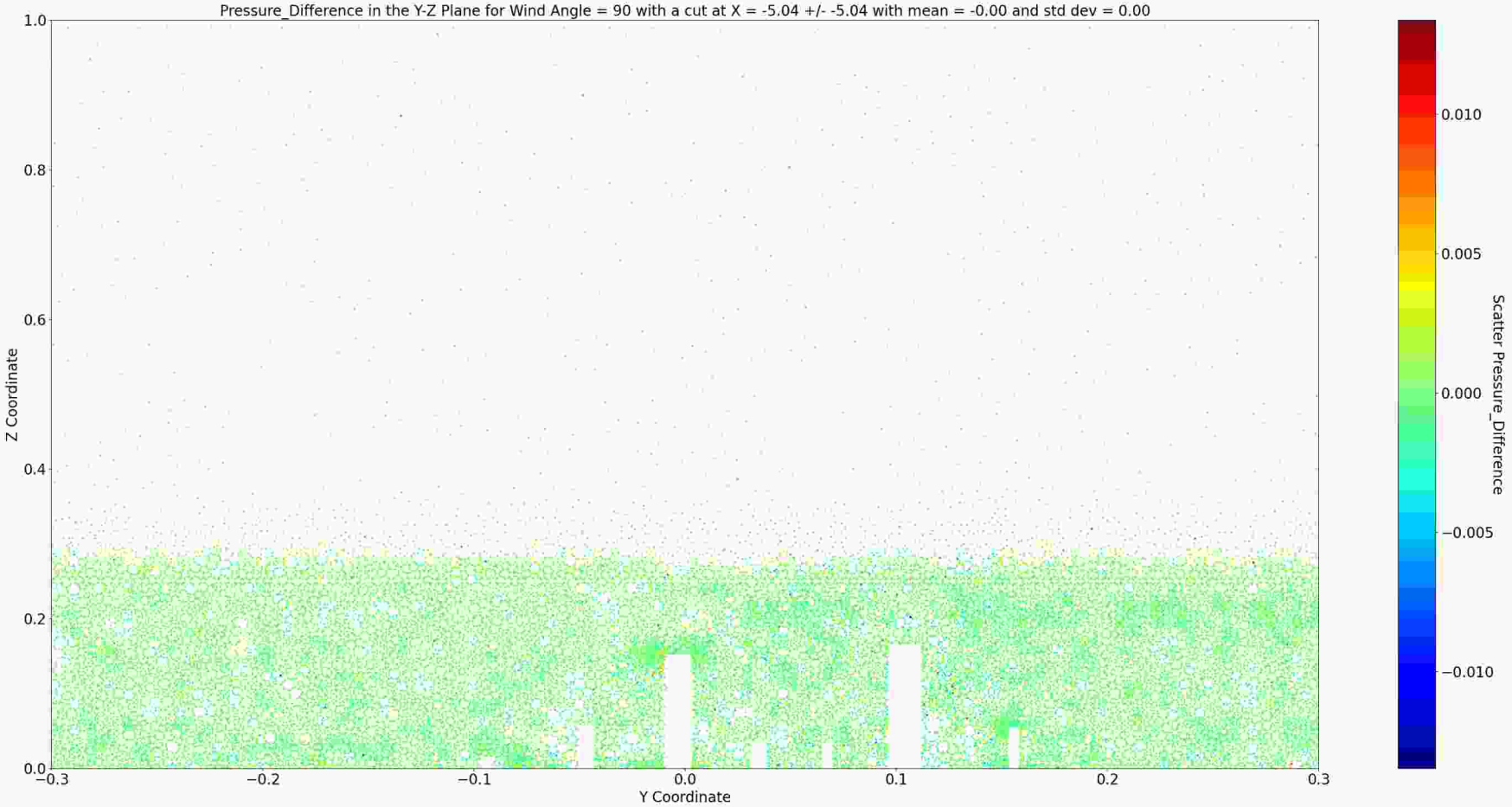

Pressure_Difference in the Y-Z Plane for Wind Angle = 15 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010

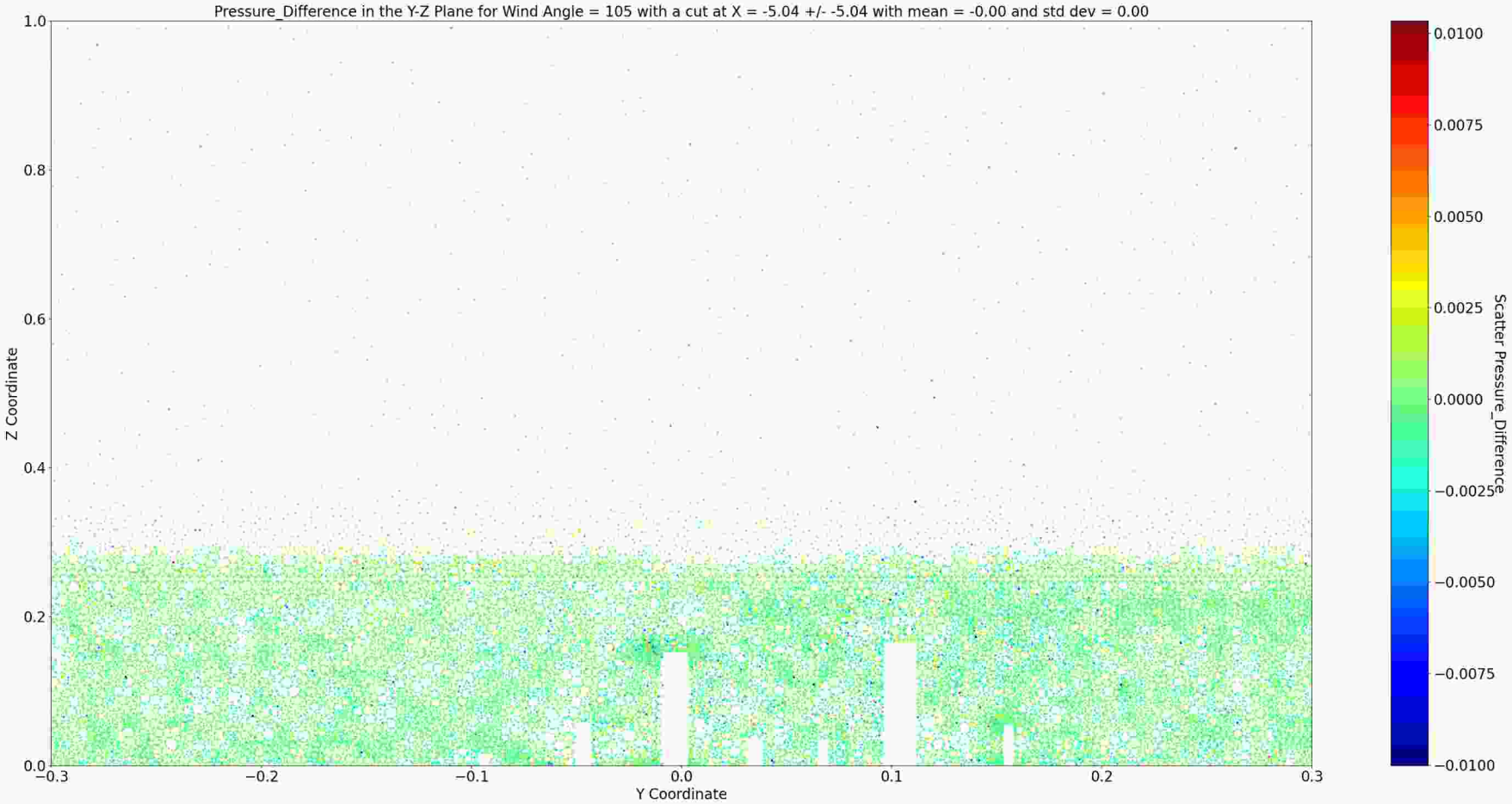

Pressure_Difference in the Y-Z Plane for Wind Angle = 30 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010

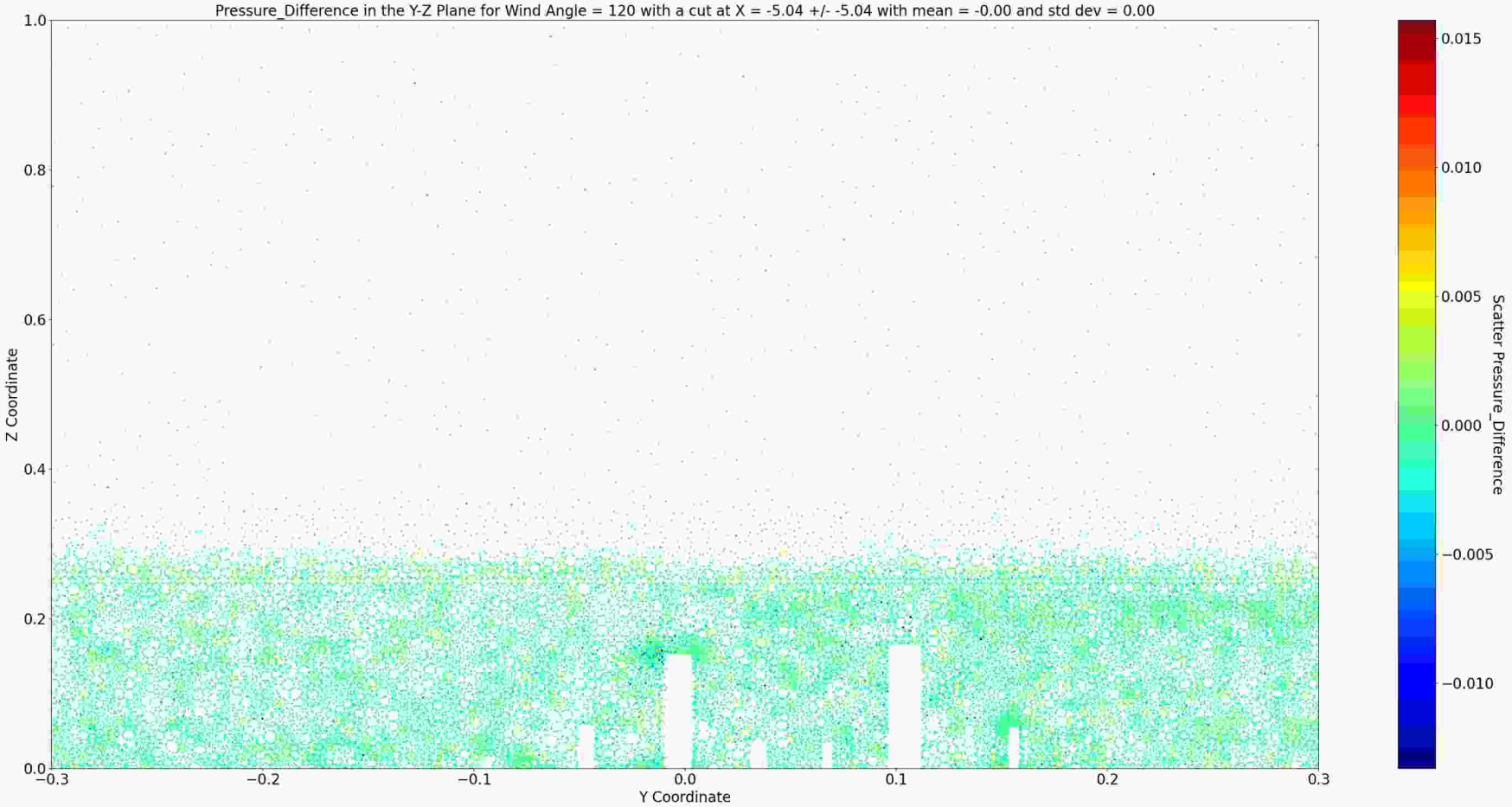

Pressure_Difference in the Y-Z Plane for Wind Angle = 45 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010

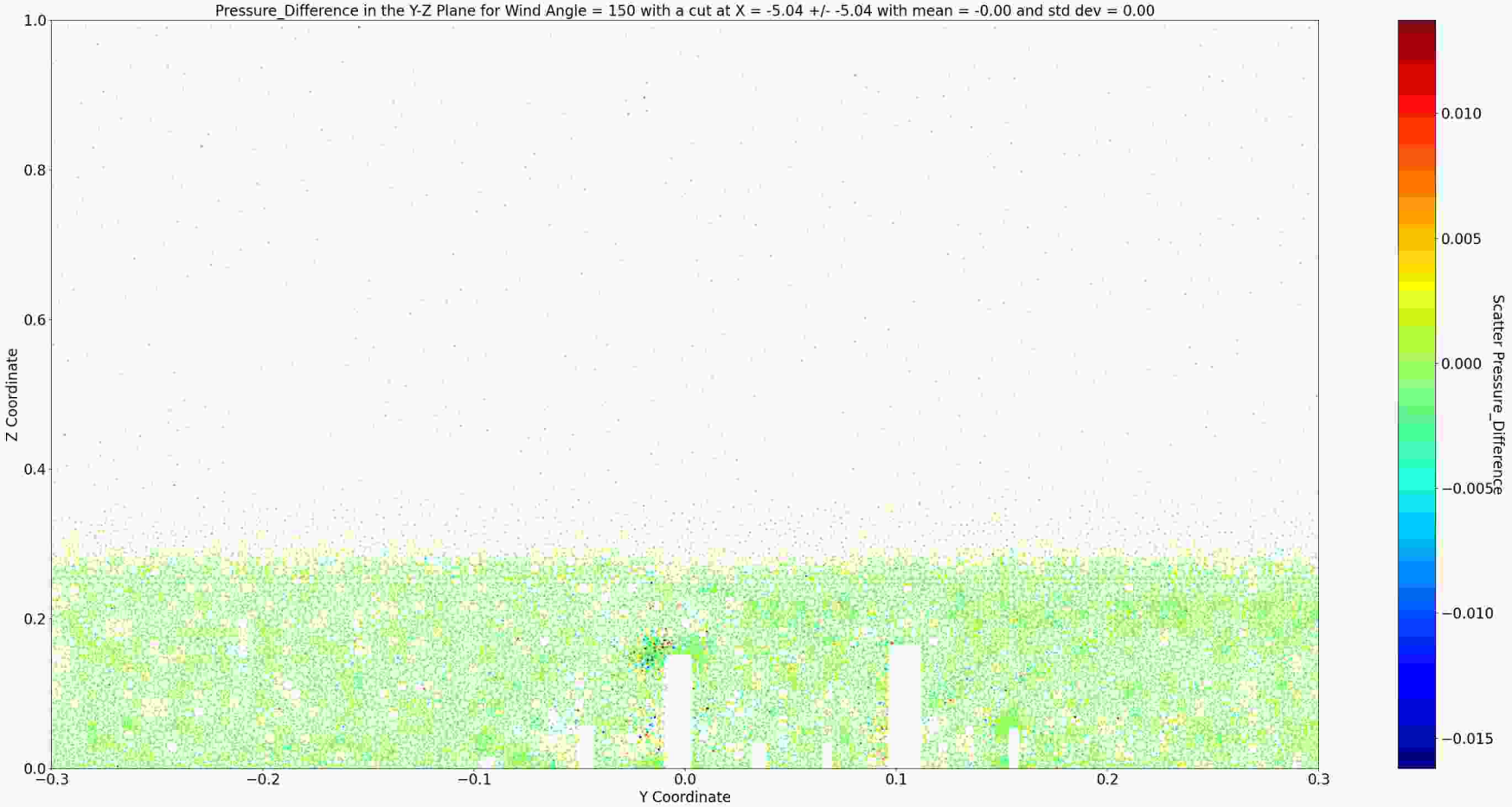

Pressure_Difference in the Y-Z Plane for Wind Angle = 60 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010

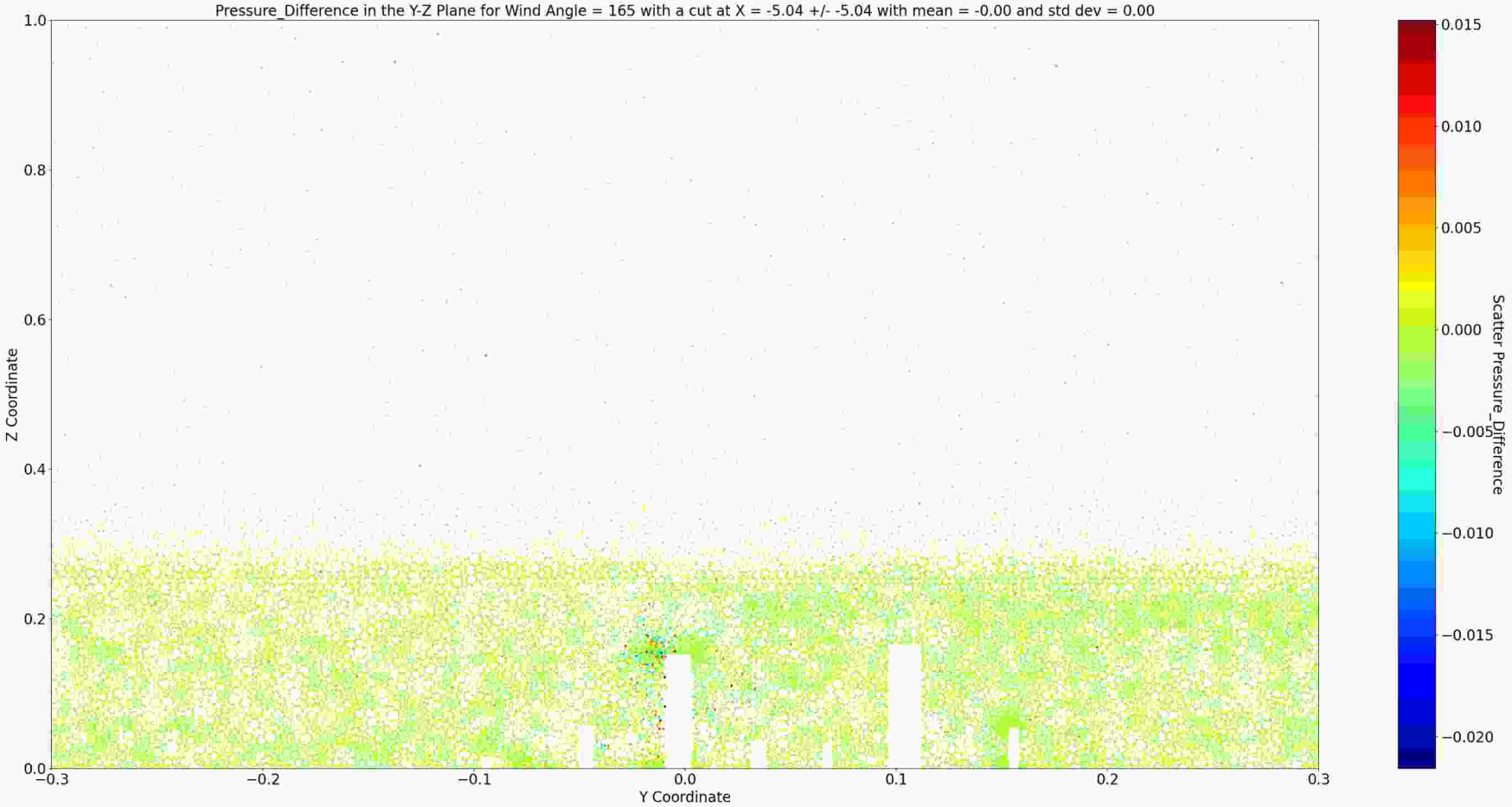

Pressure_Difference in the Y-Z Plane for Wind Angle = 75 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010

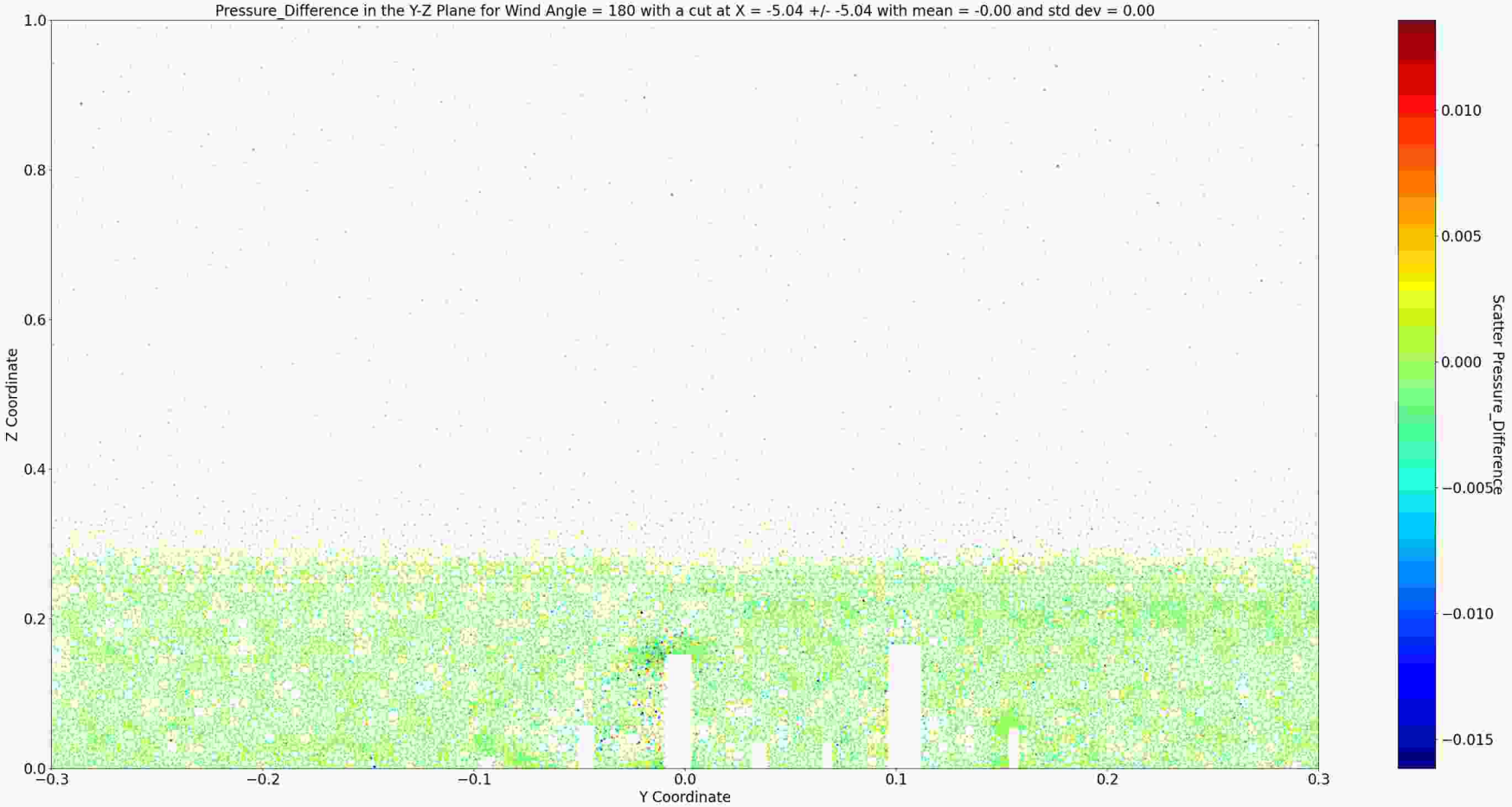

Pressure_Difference in the Y-Z Plane for Wind Angle = 90 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010


Pressure_Difference in the Y-Z Plane for Wind Angle = 105 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0100
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075
−0.0100

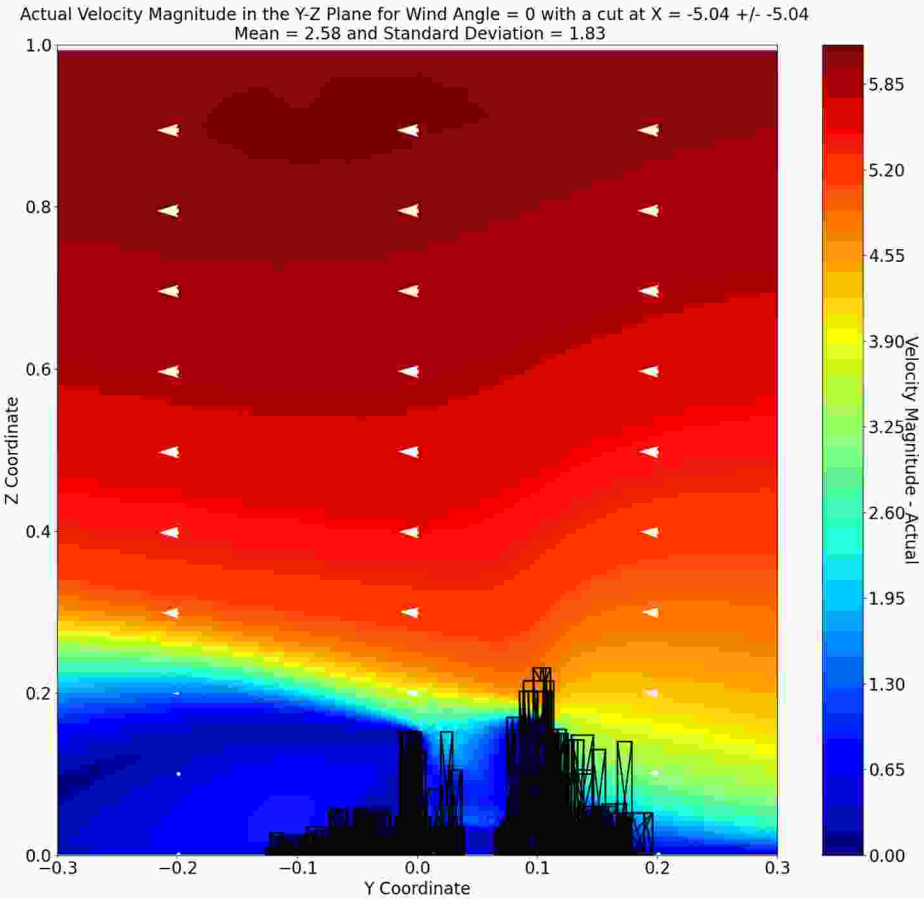

Pressure_Difference in the Y-Z Plane for Wind Angle = 120 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.015
0.010
0.005
0.000
−0.005
−0.010

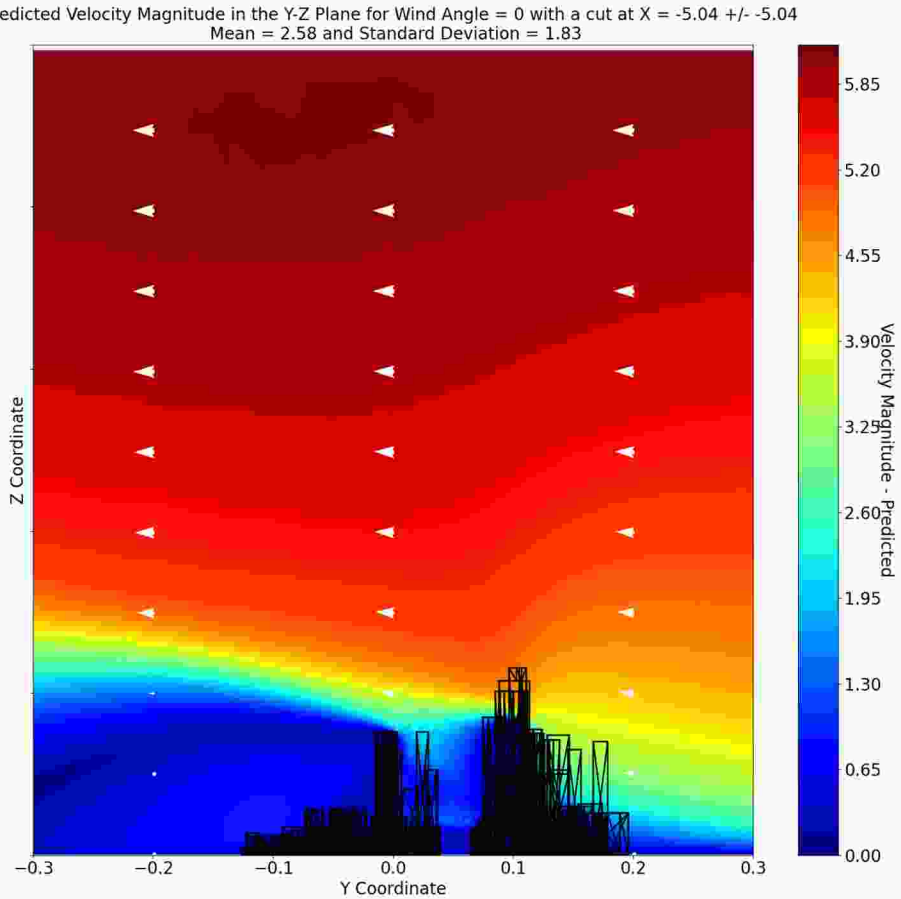

Pressure_Difference in the Y-Z Plane for Wind Angle = 150 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010
−0.015


Pressure_Difference in the Y-Z Plane for Wind Angle = 165 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015
−0.020

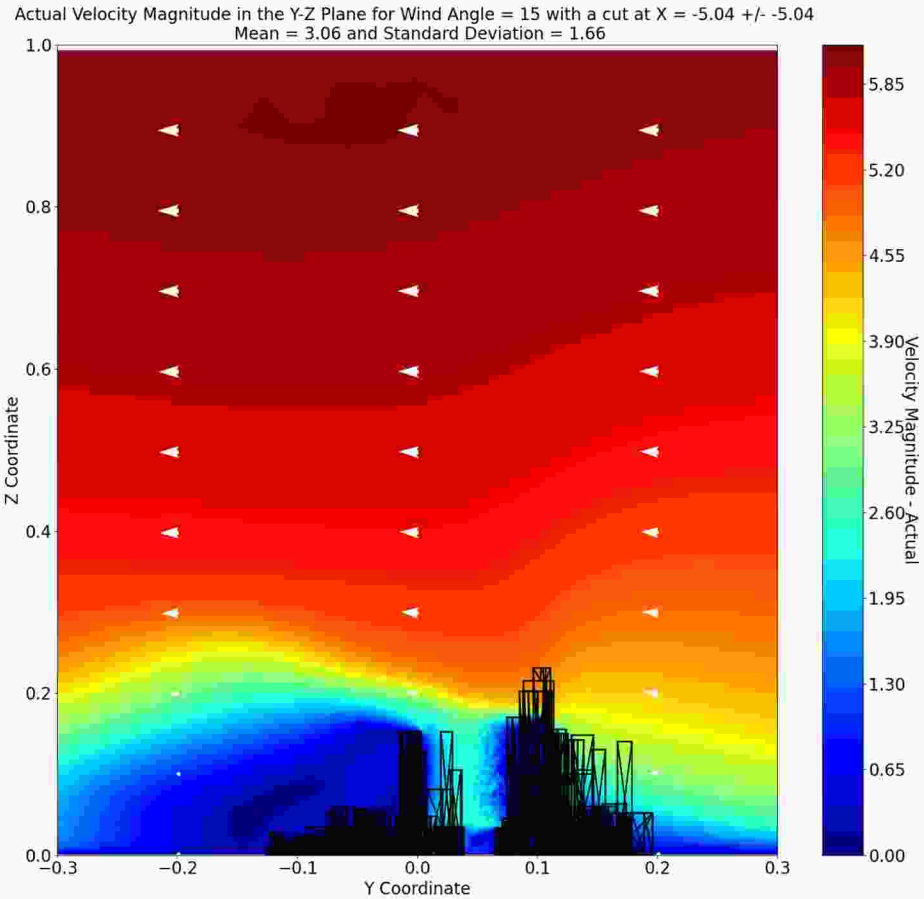

Pressure_Difference in the Y-Z Plane for Wind Angle = 180 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010
−0.015

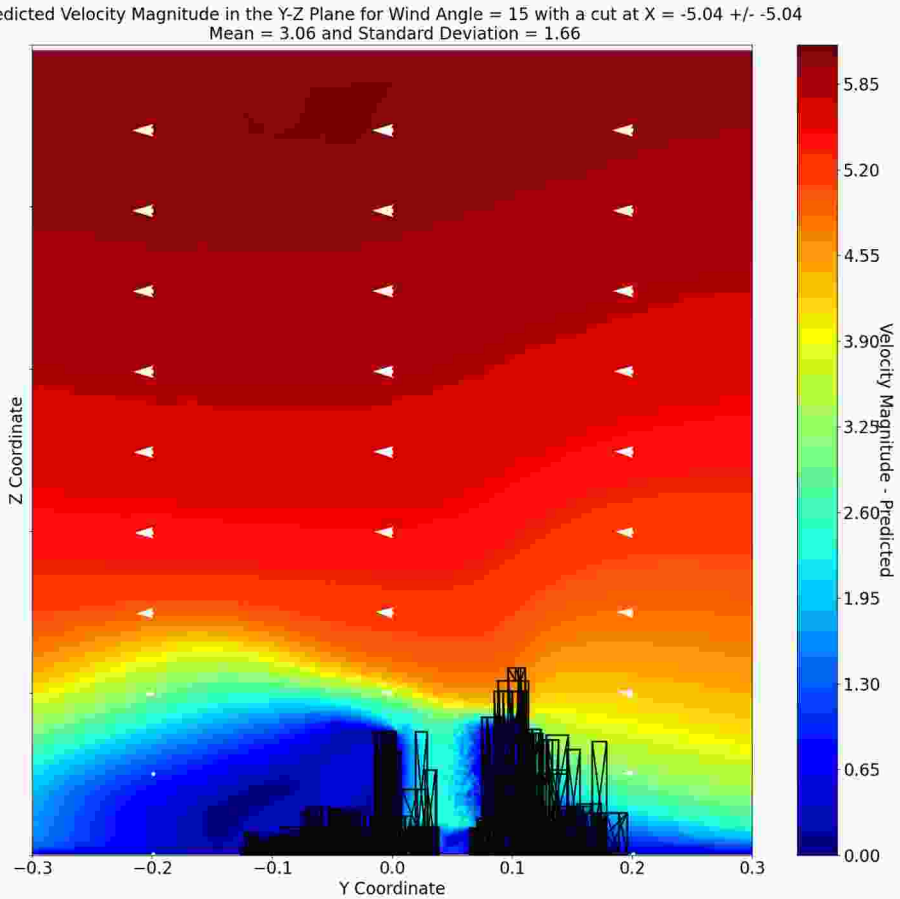
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



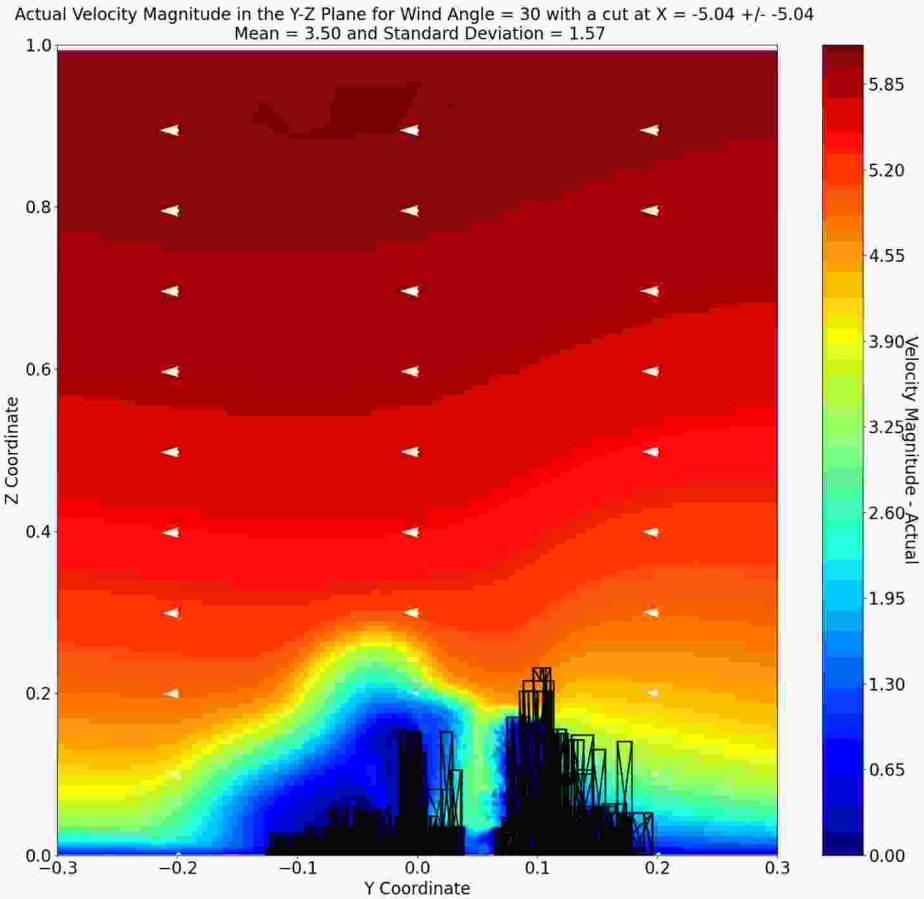


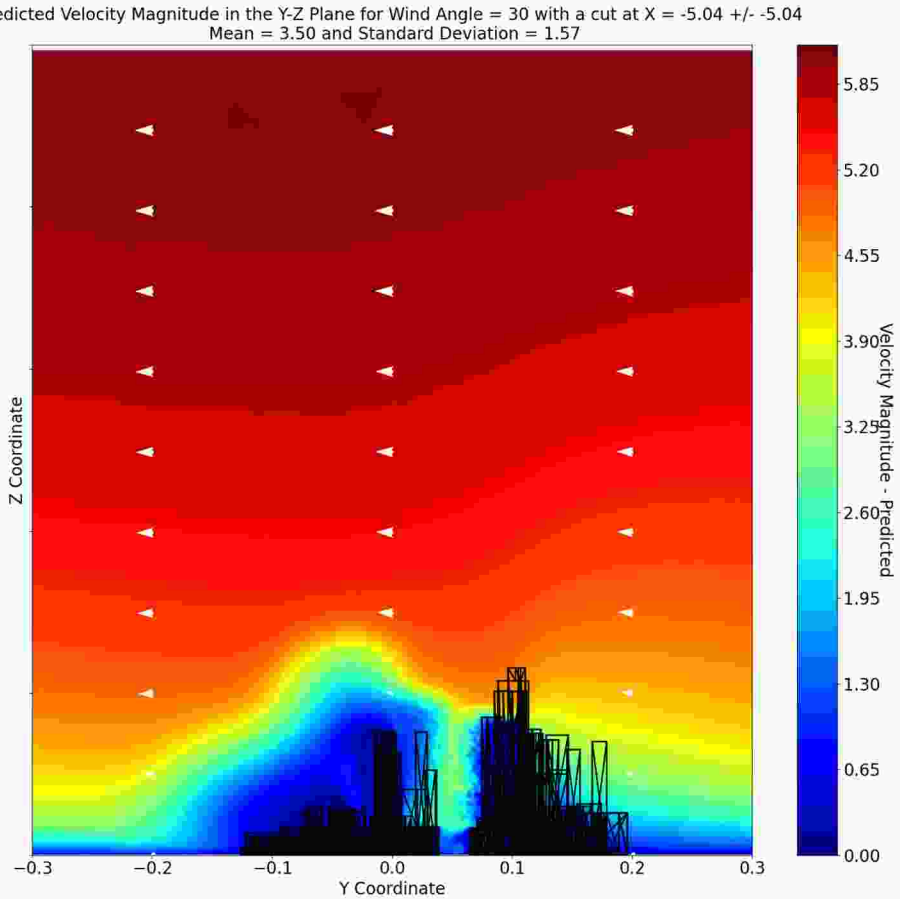
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



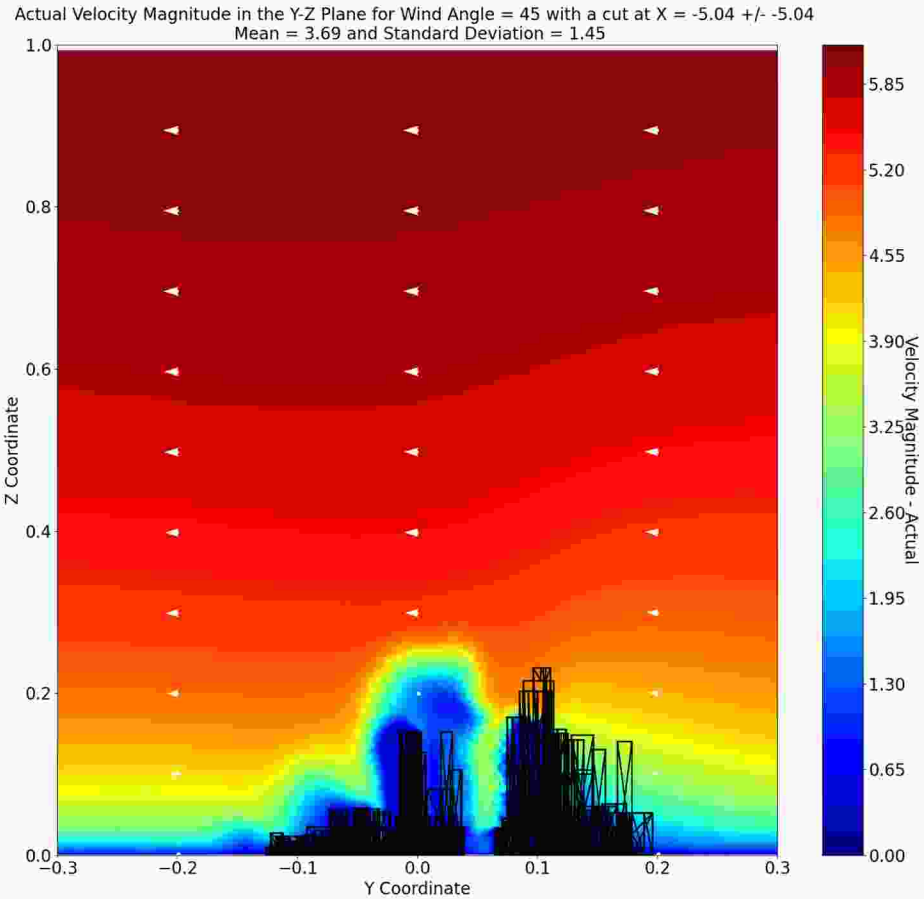


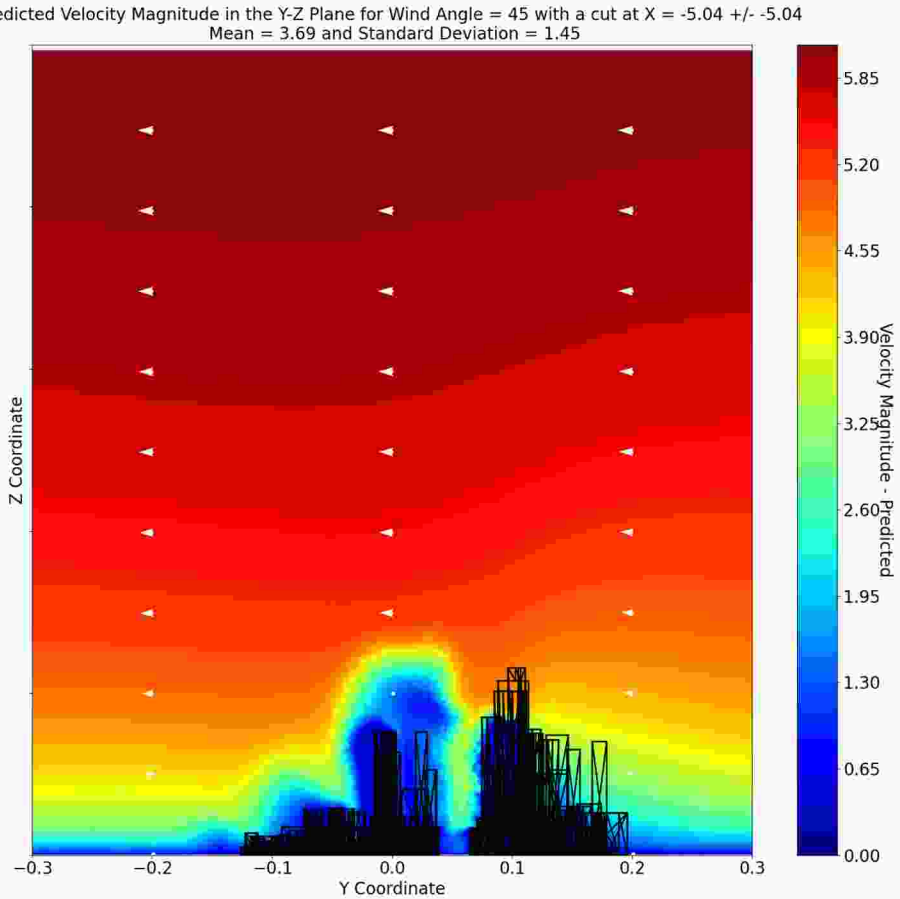
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



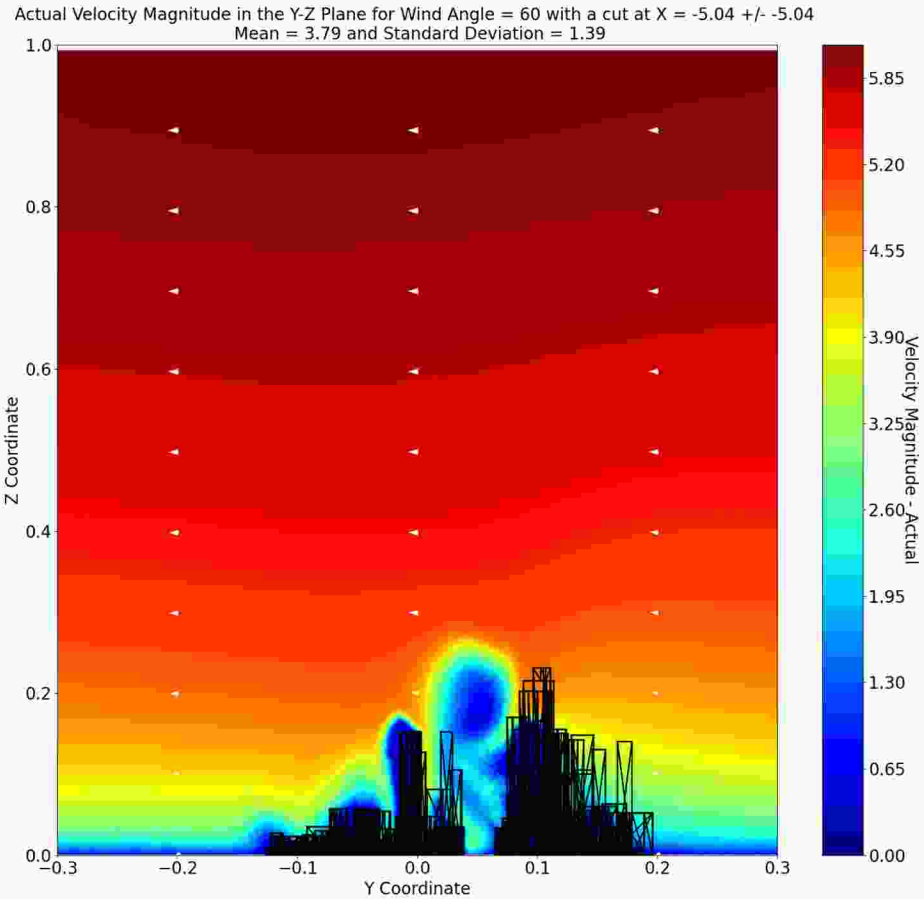


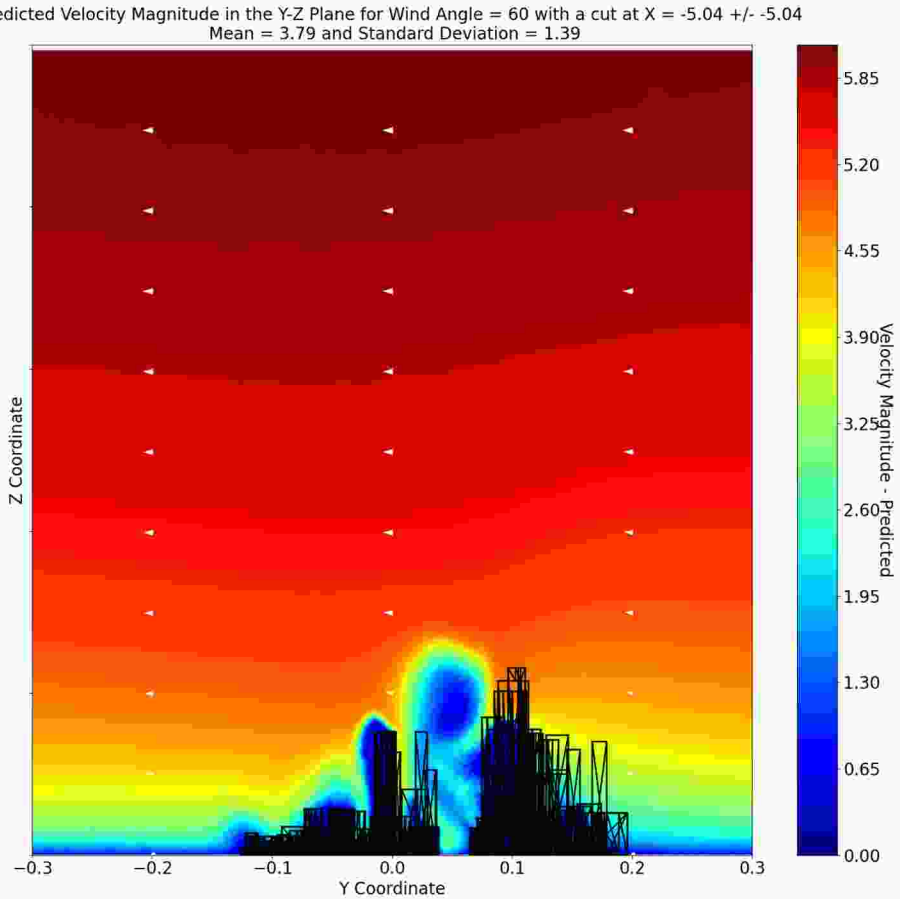
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



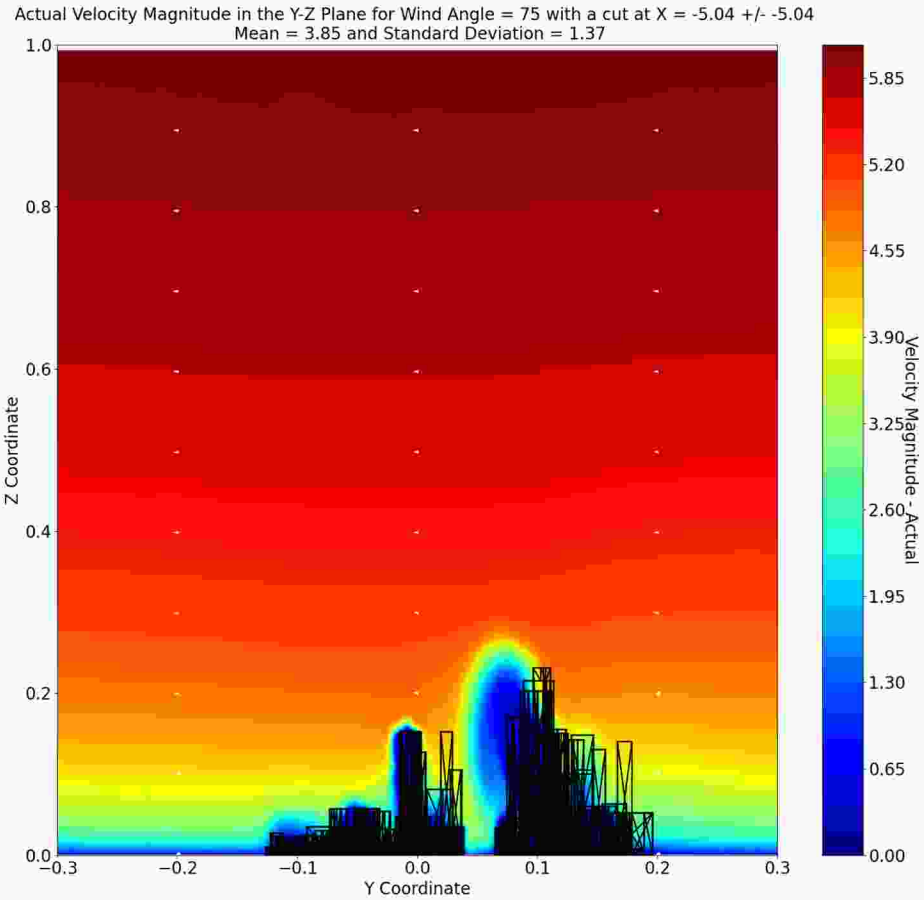


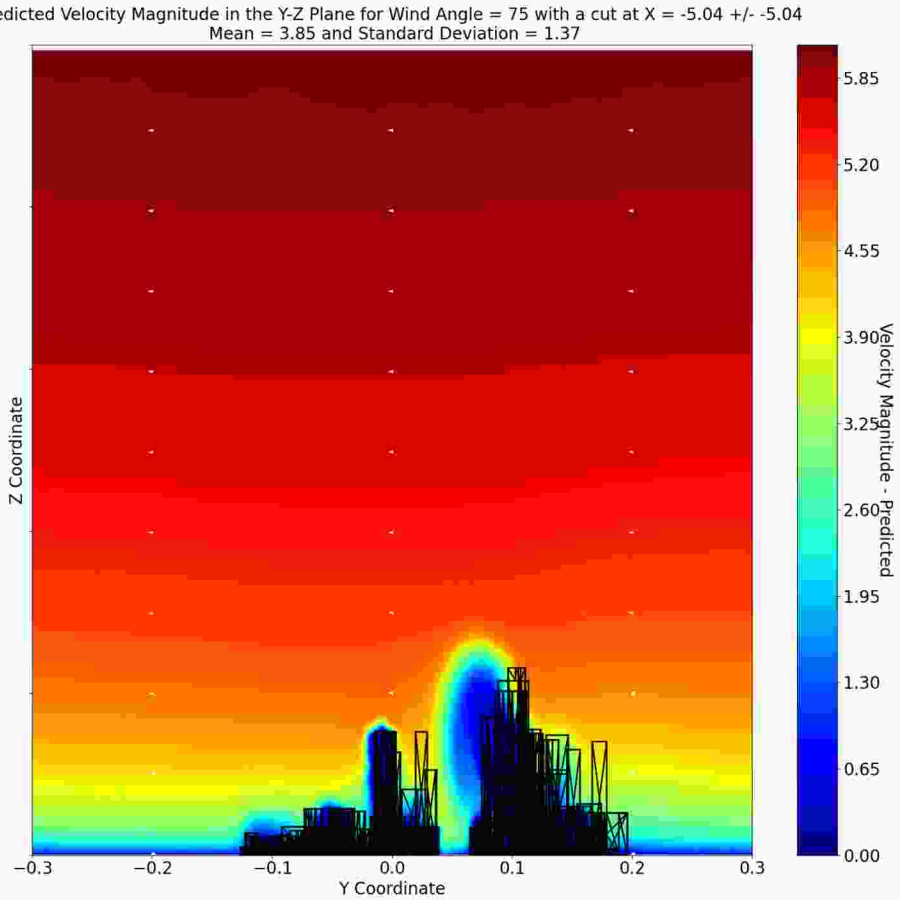
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



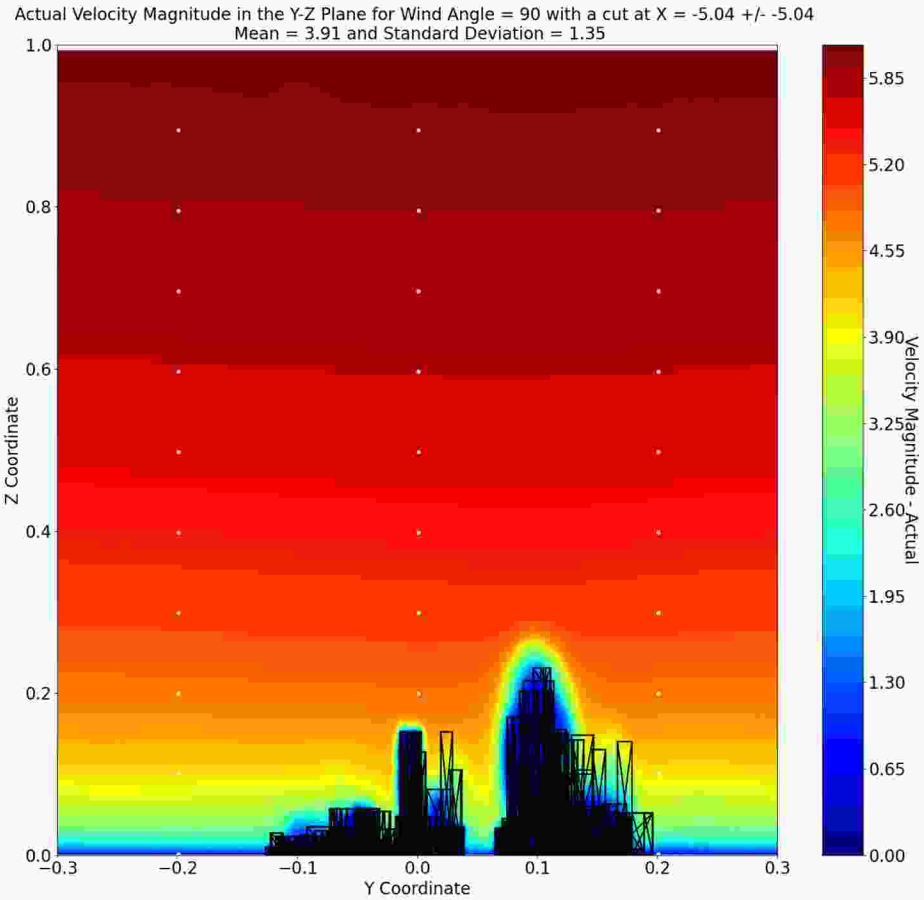


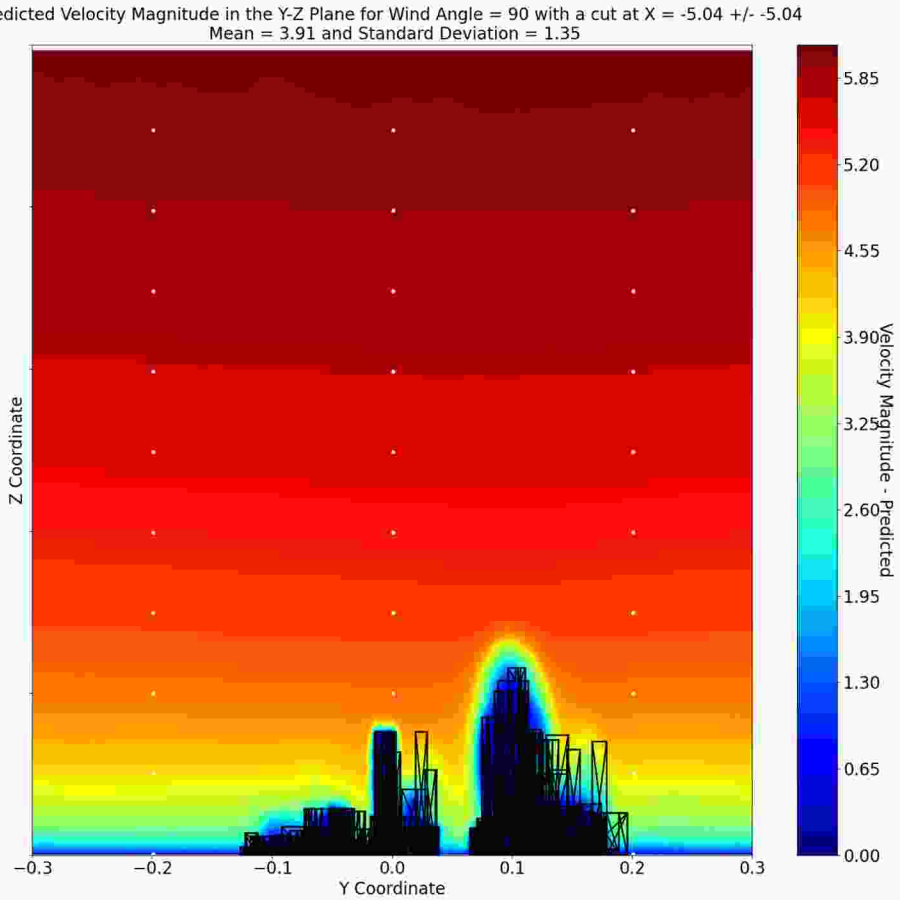
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



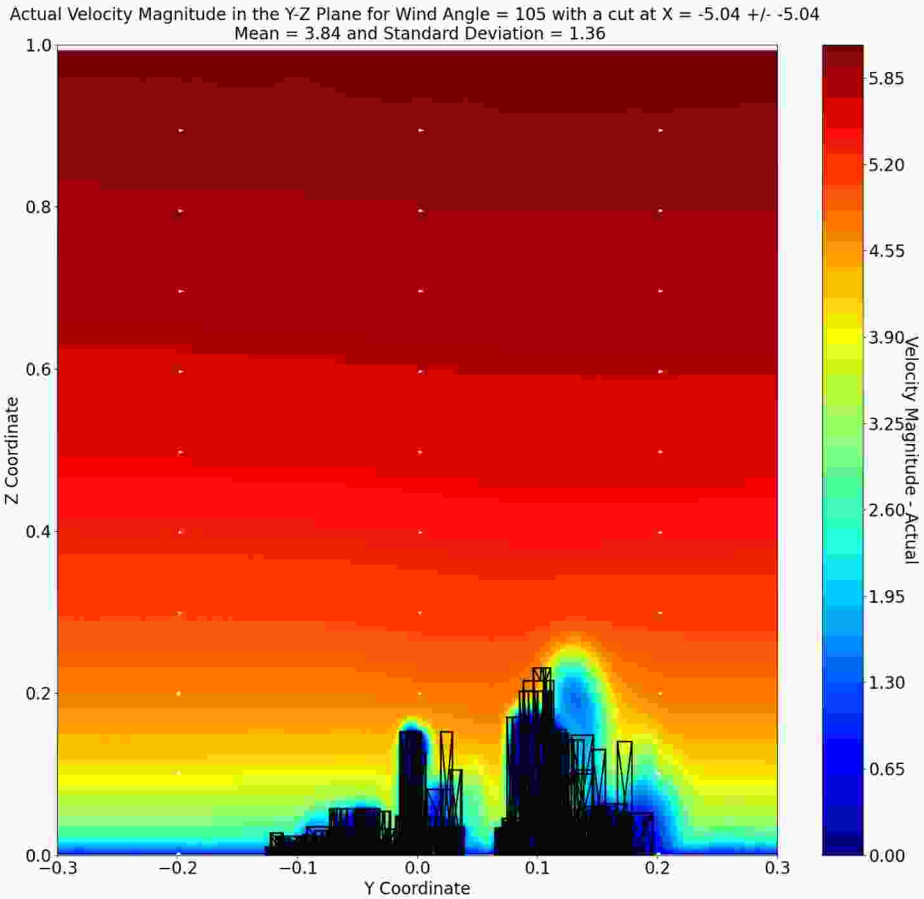


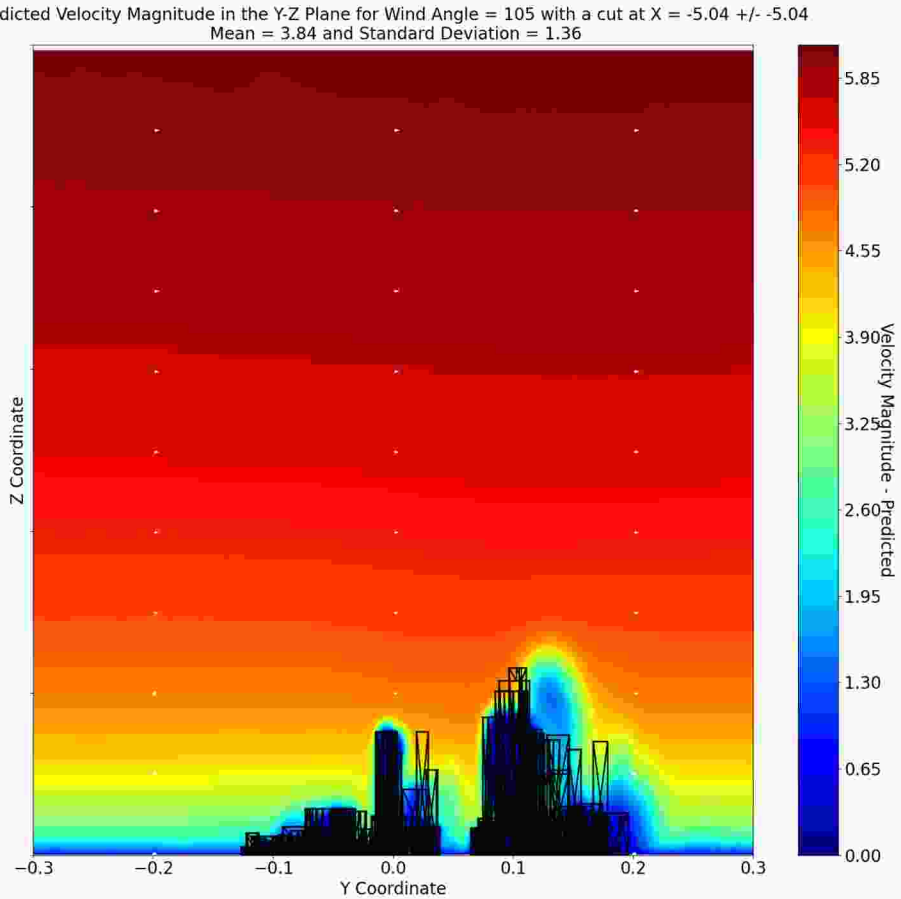
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



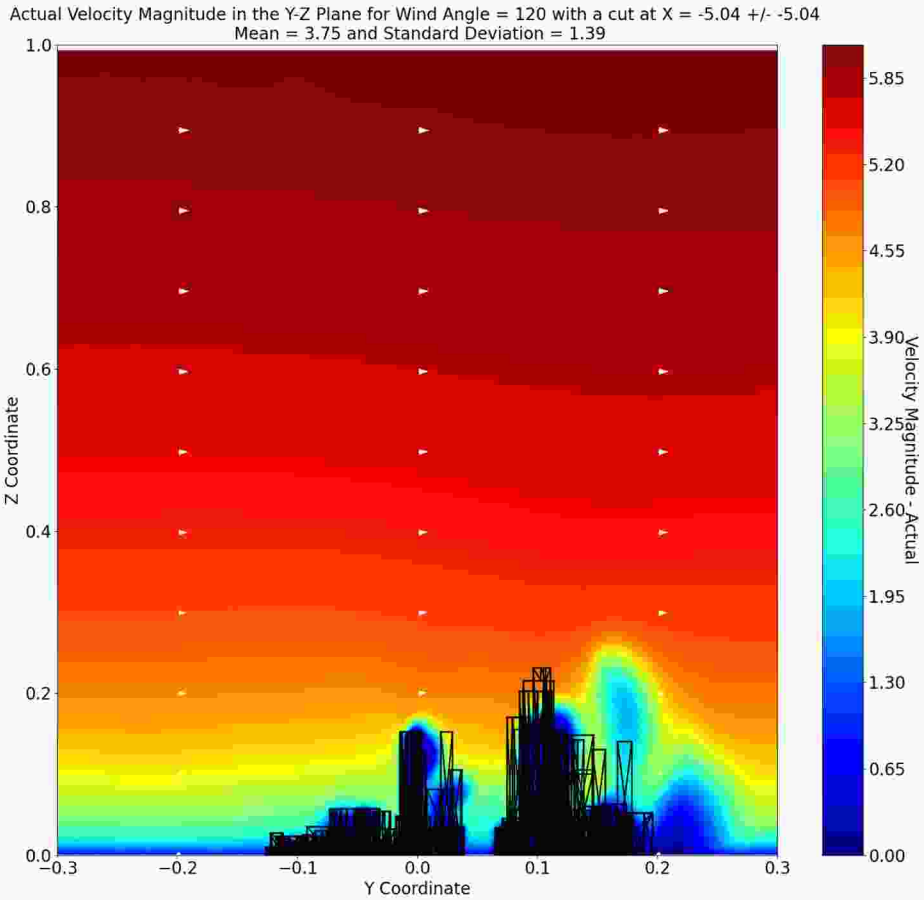


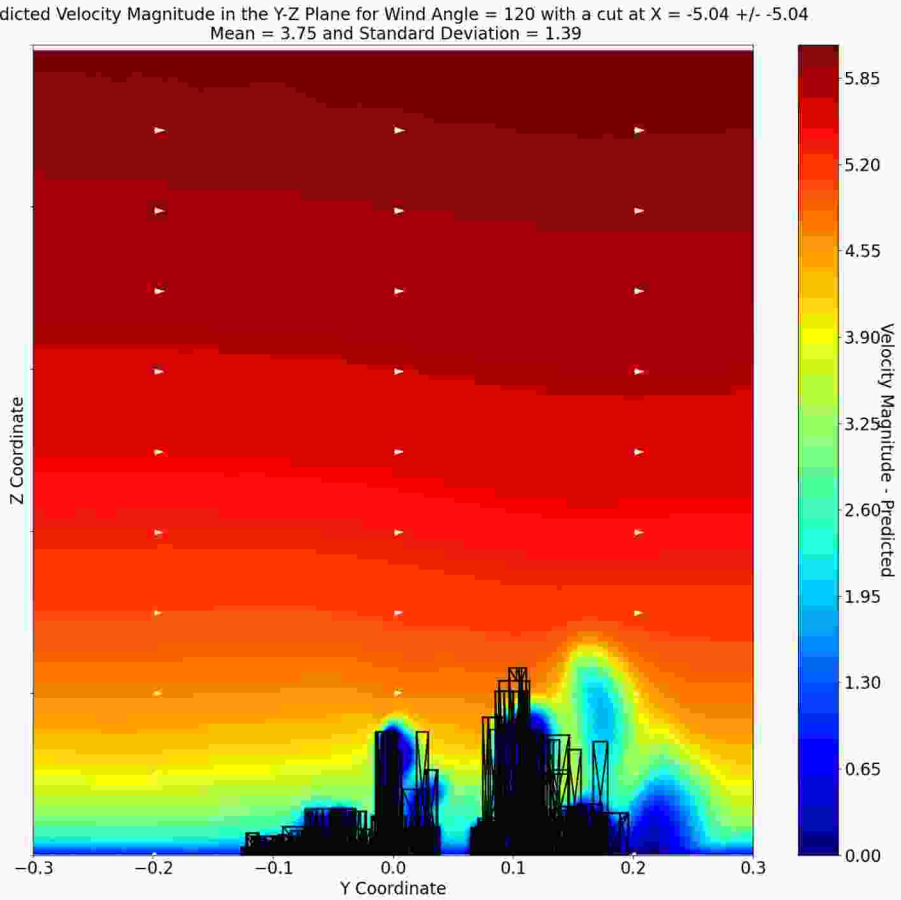
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



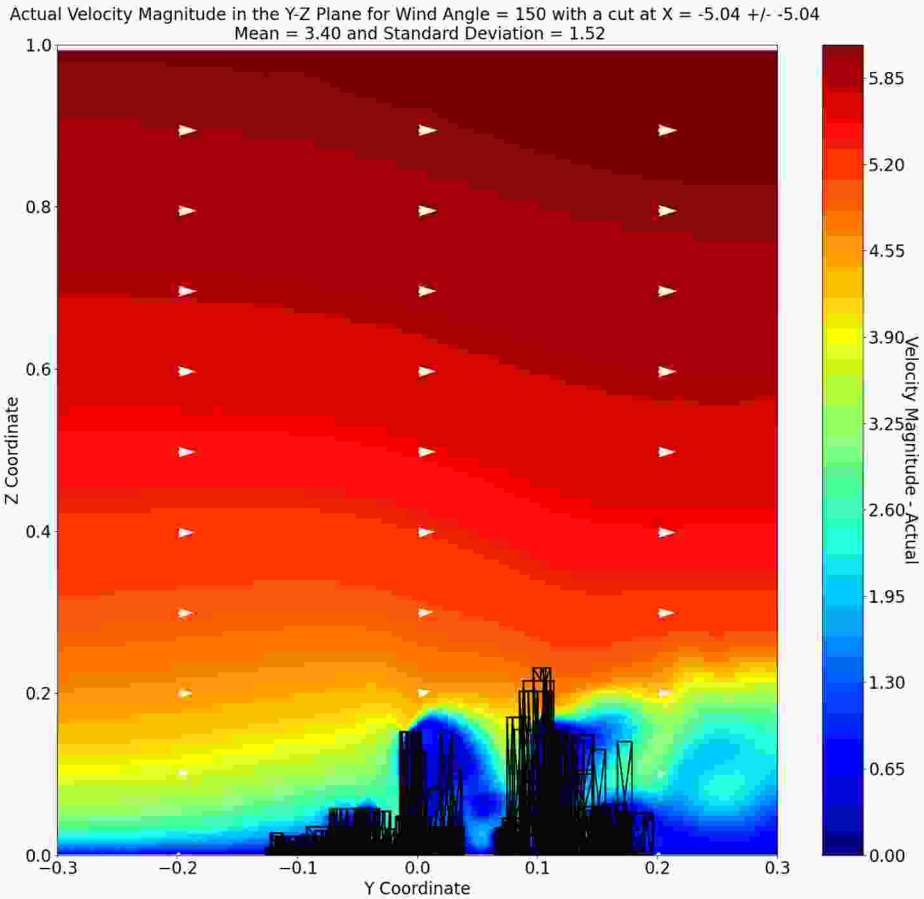


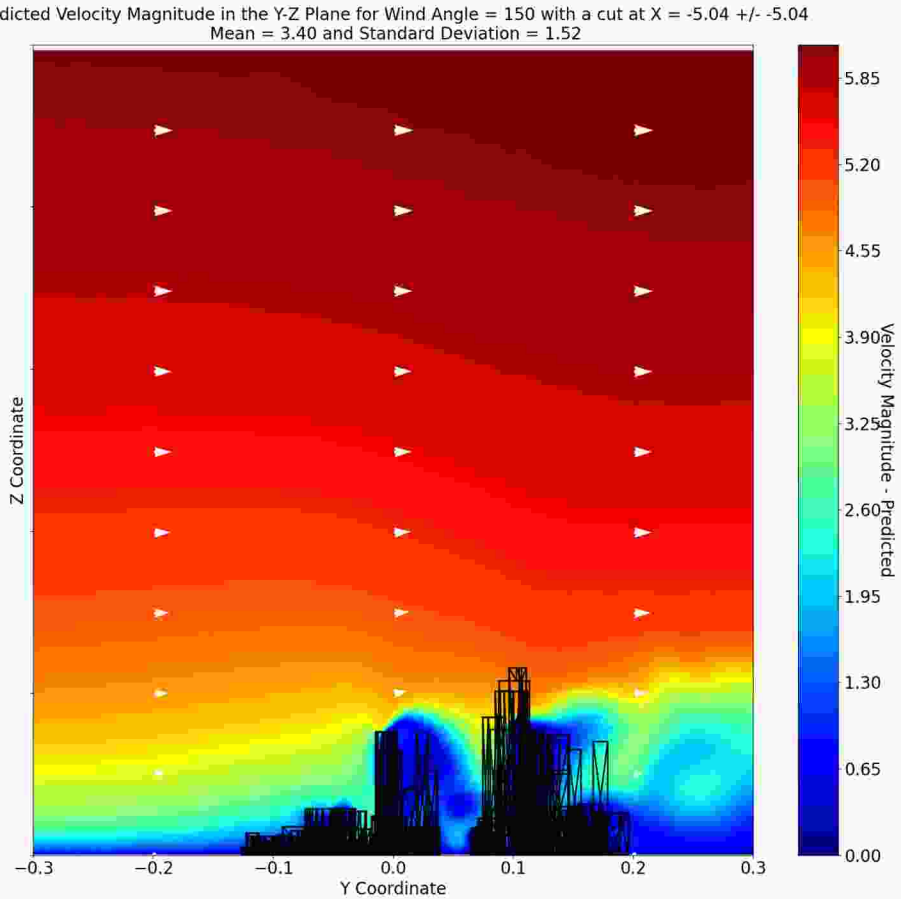
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



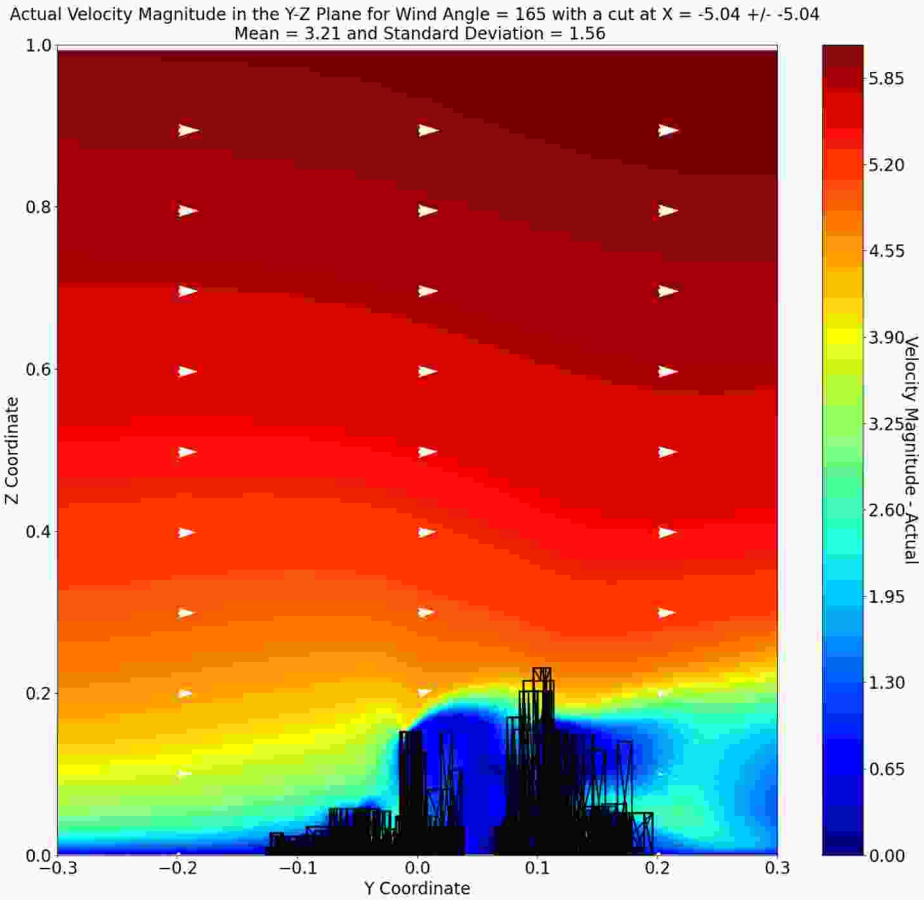


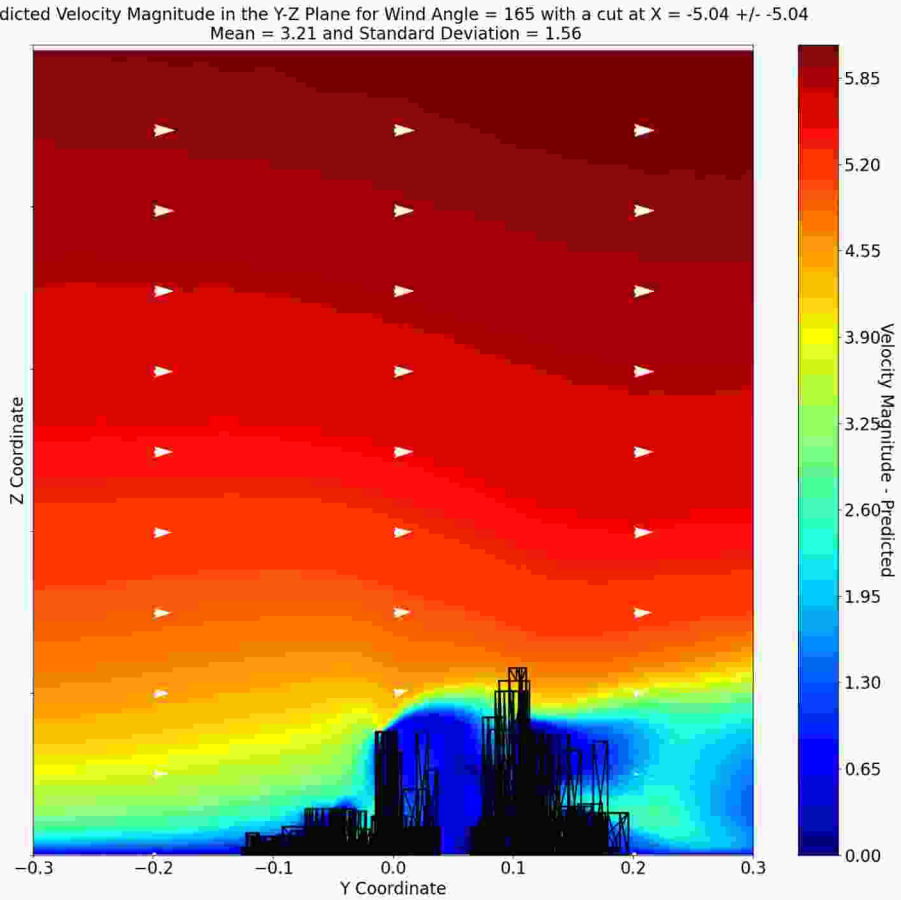
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



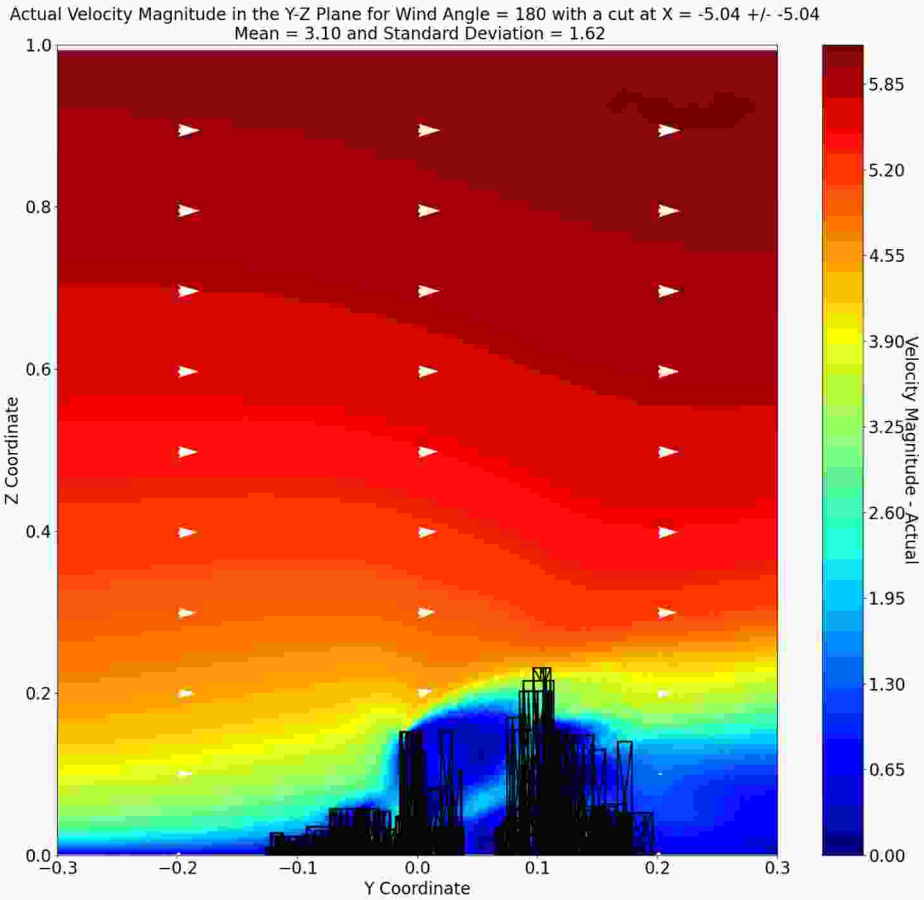


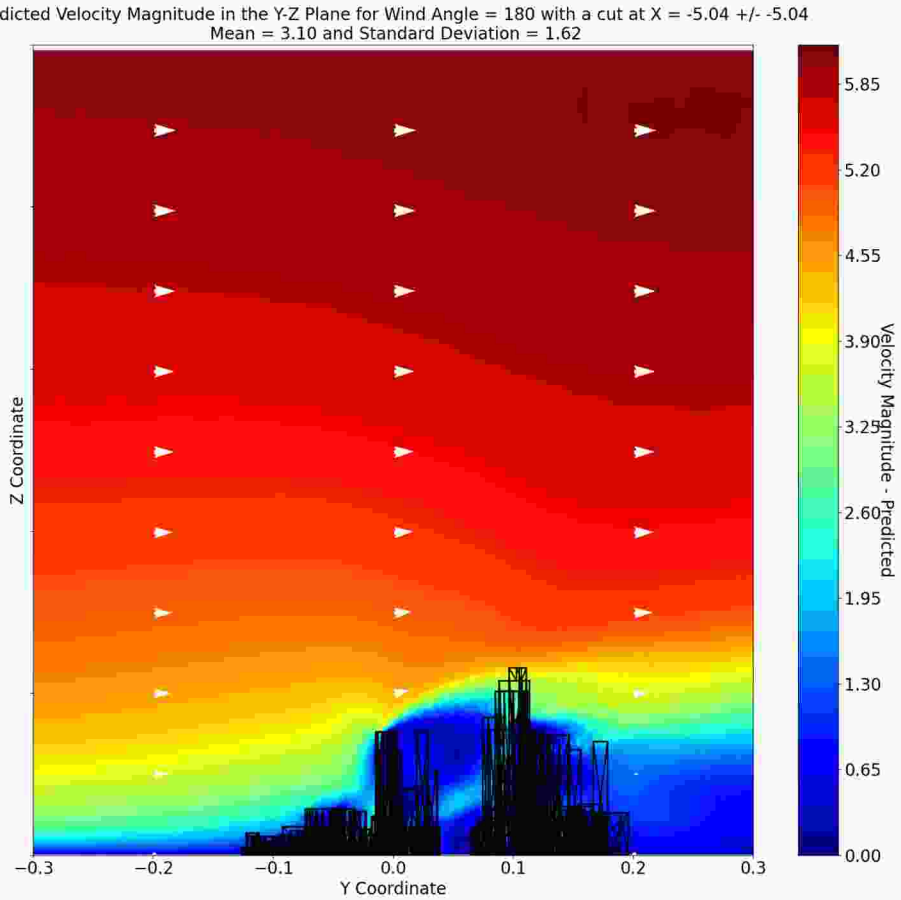
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



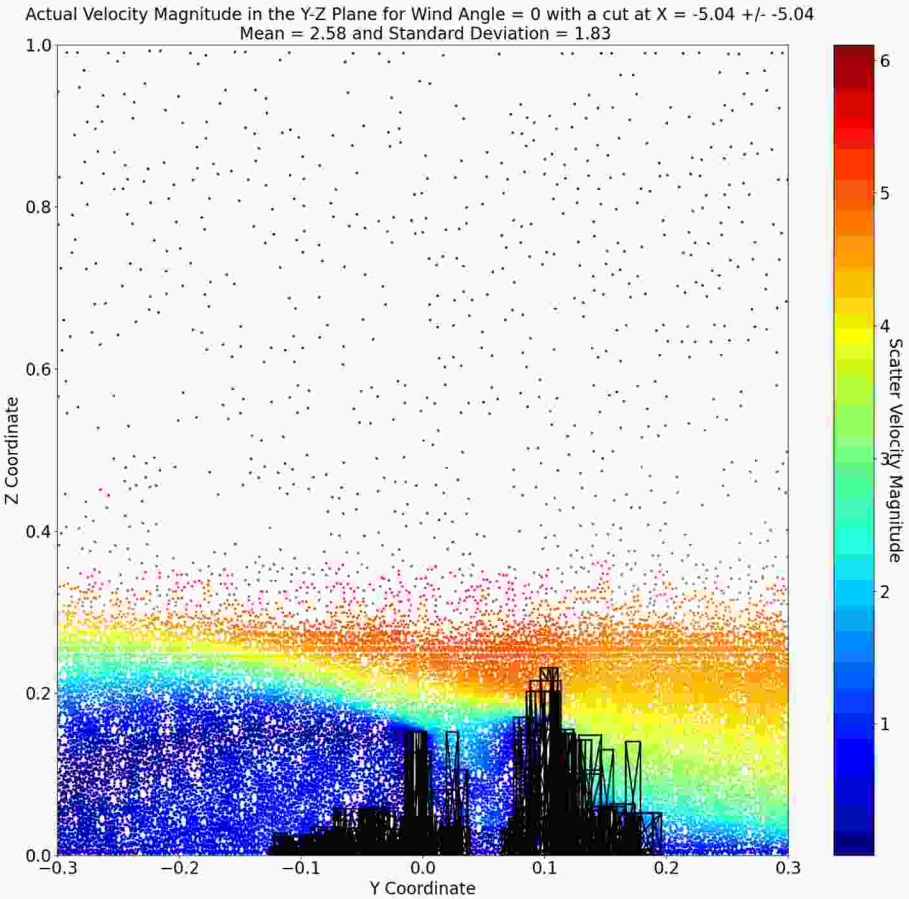


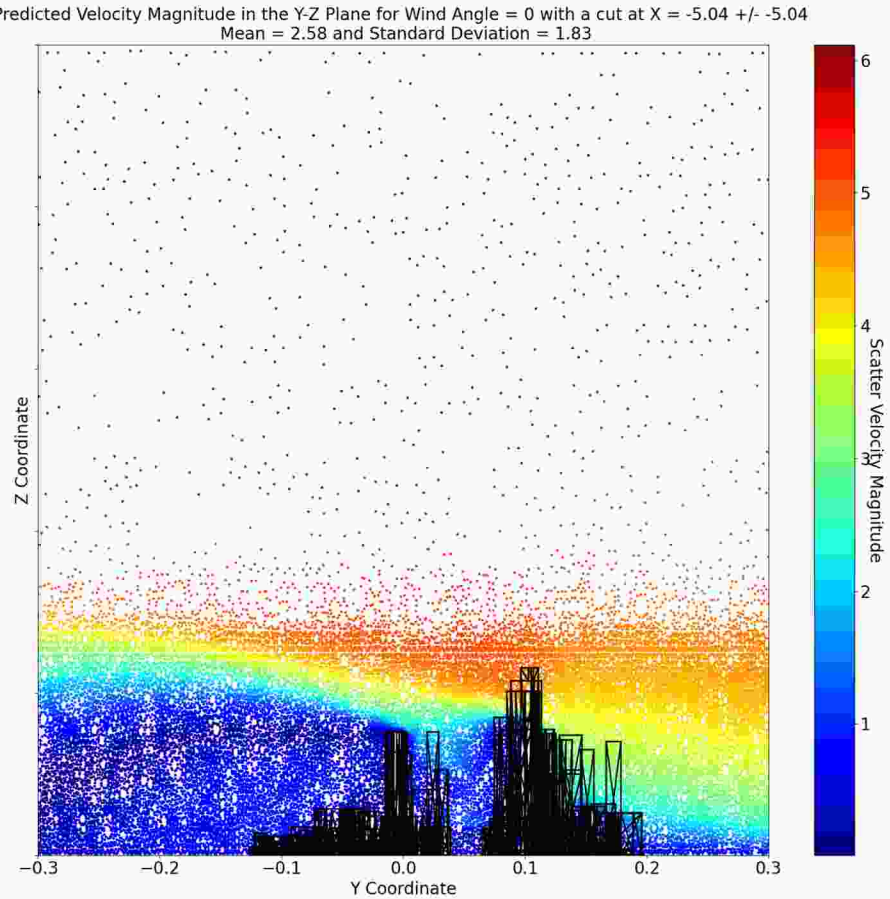
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



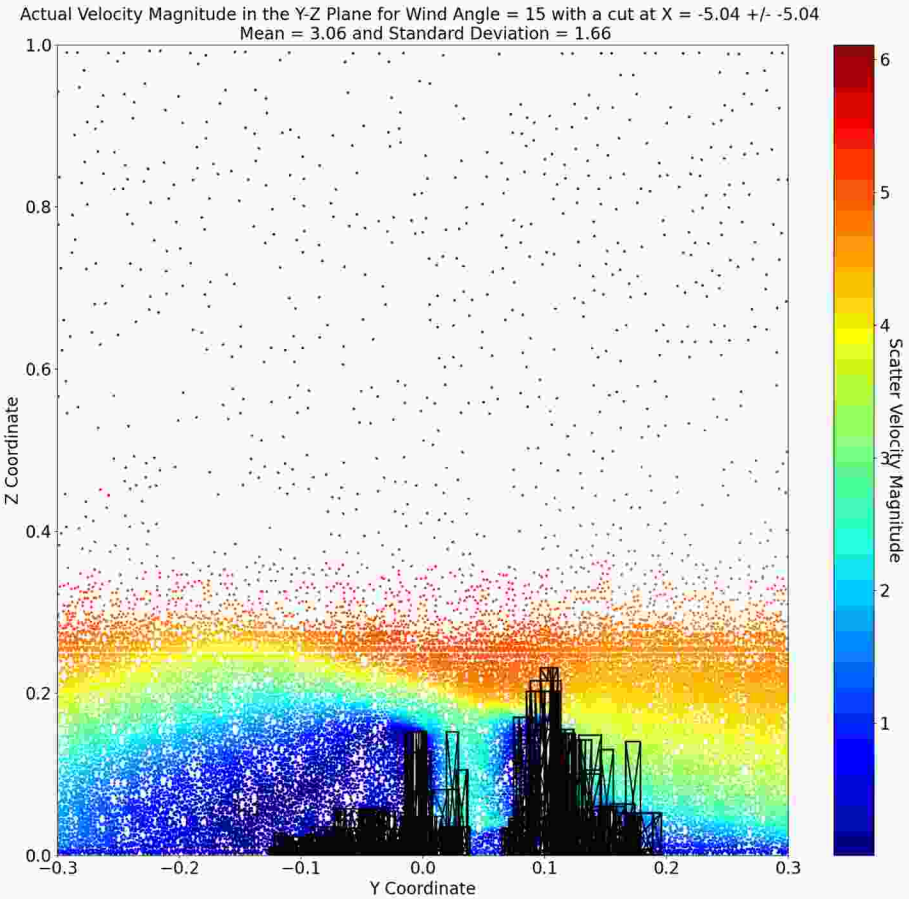


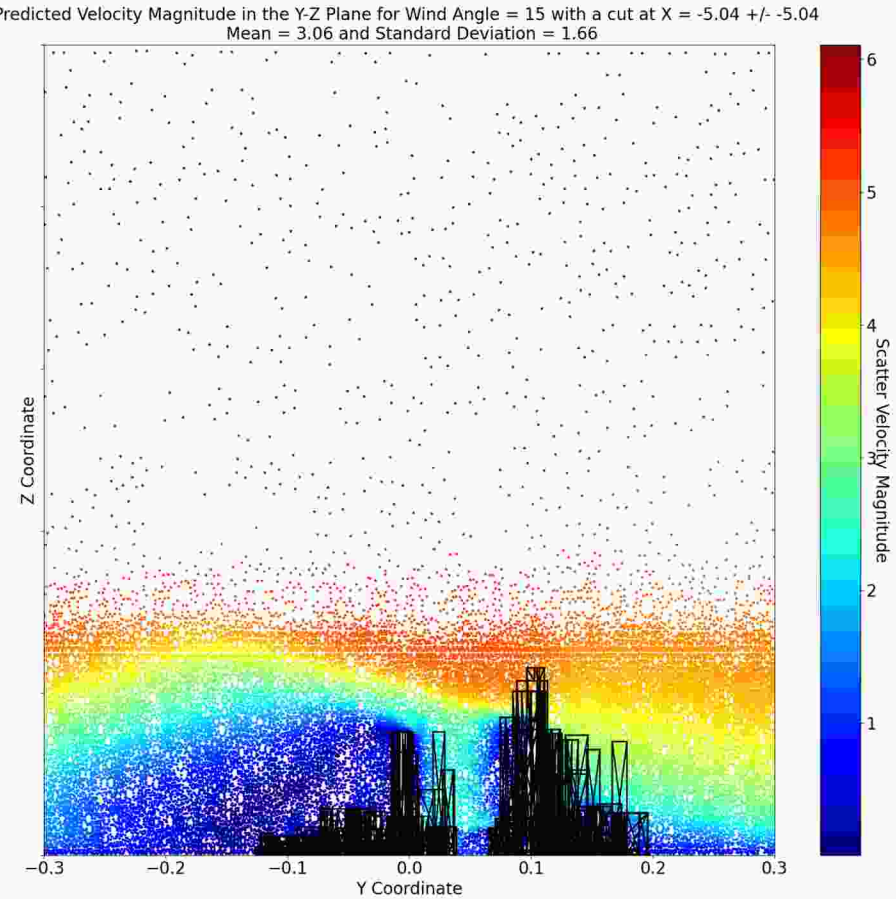
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



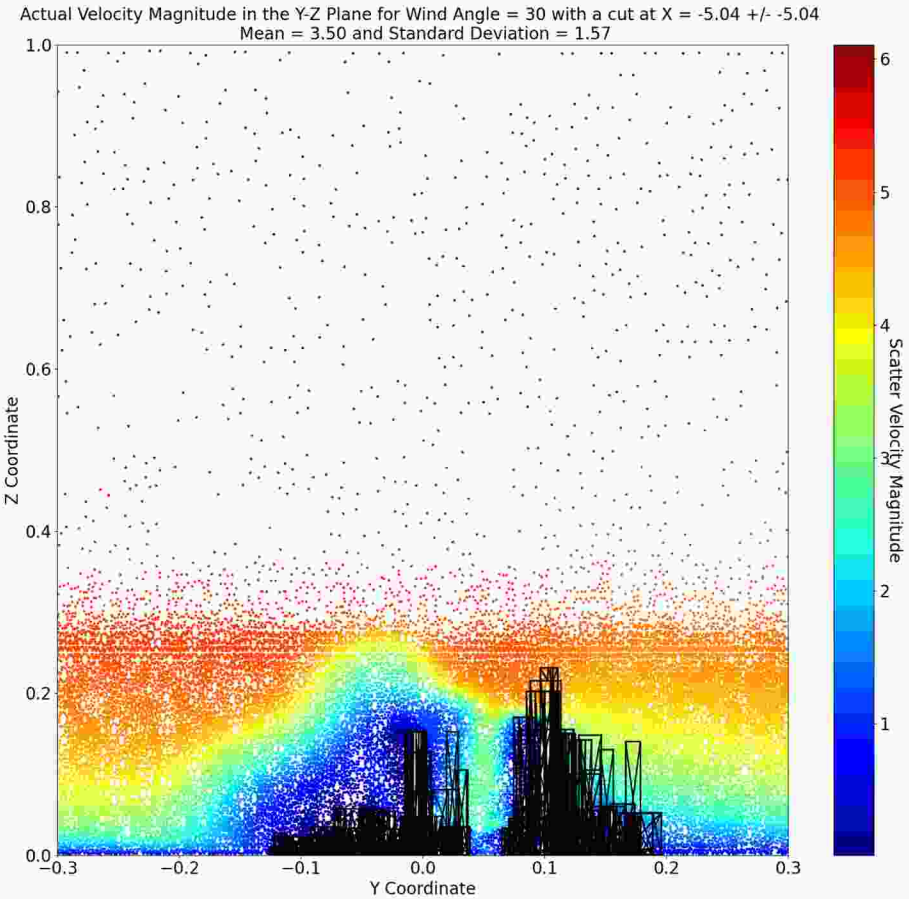


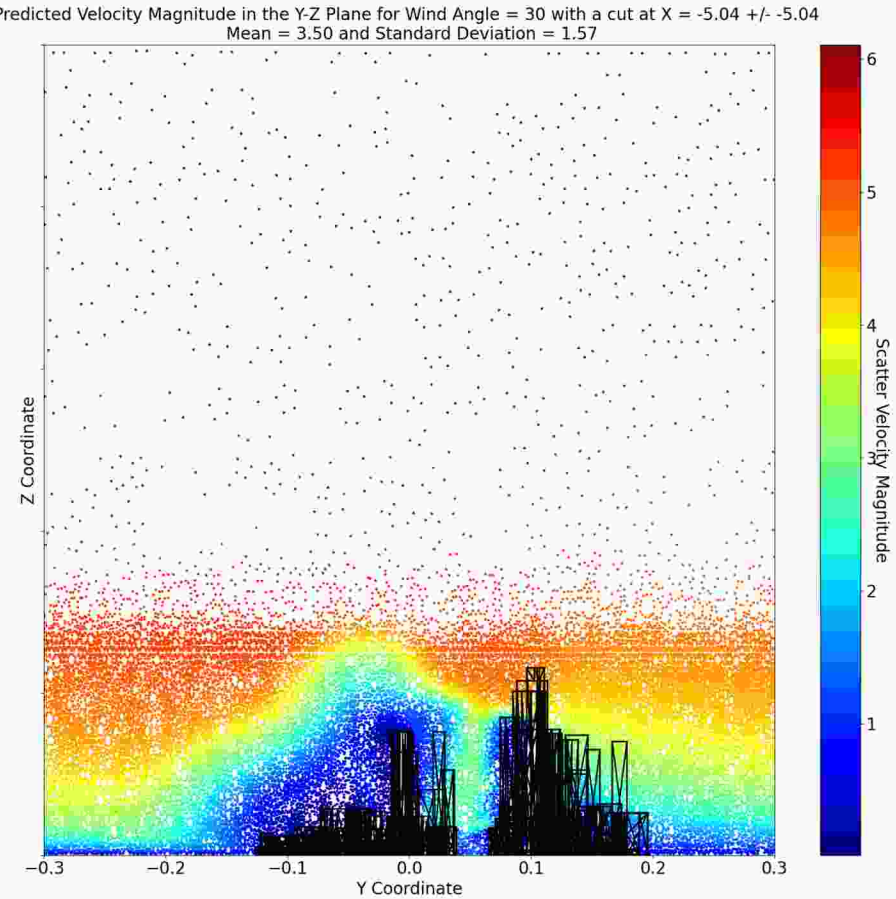
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



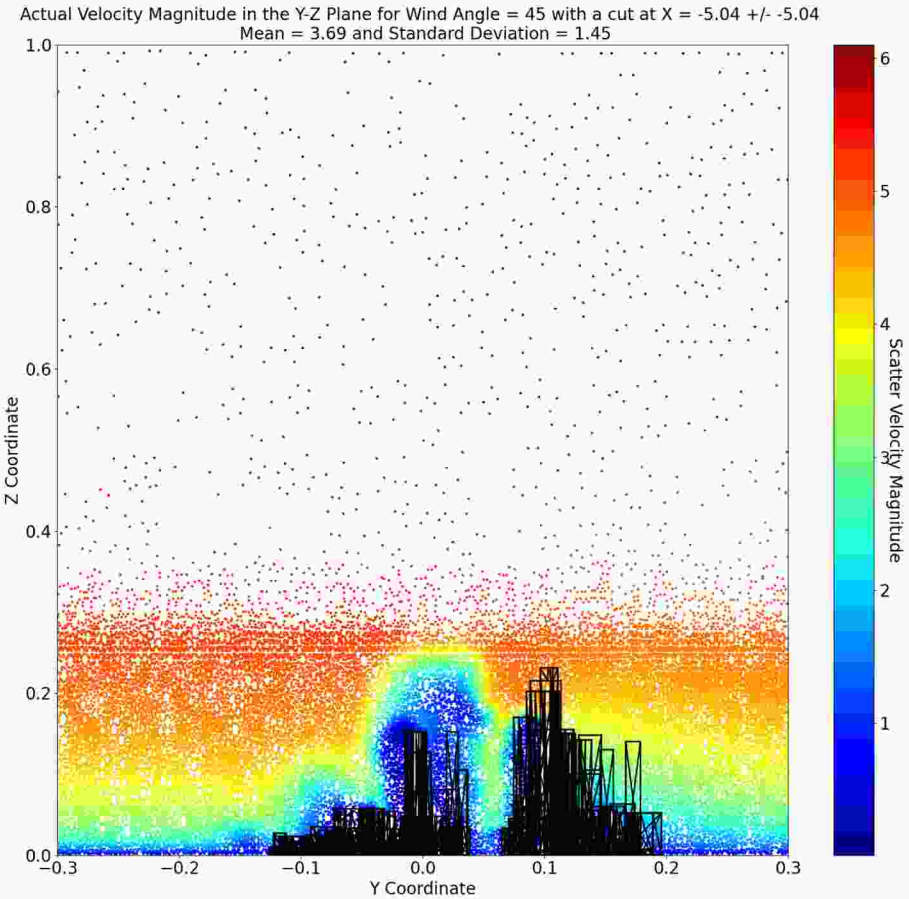


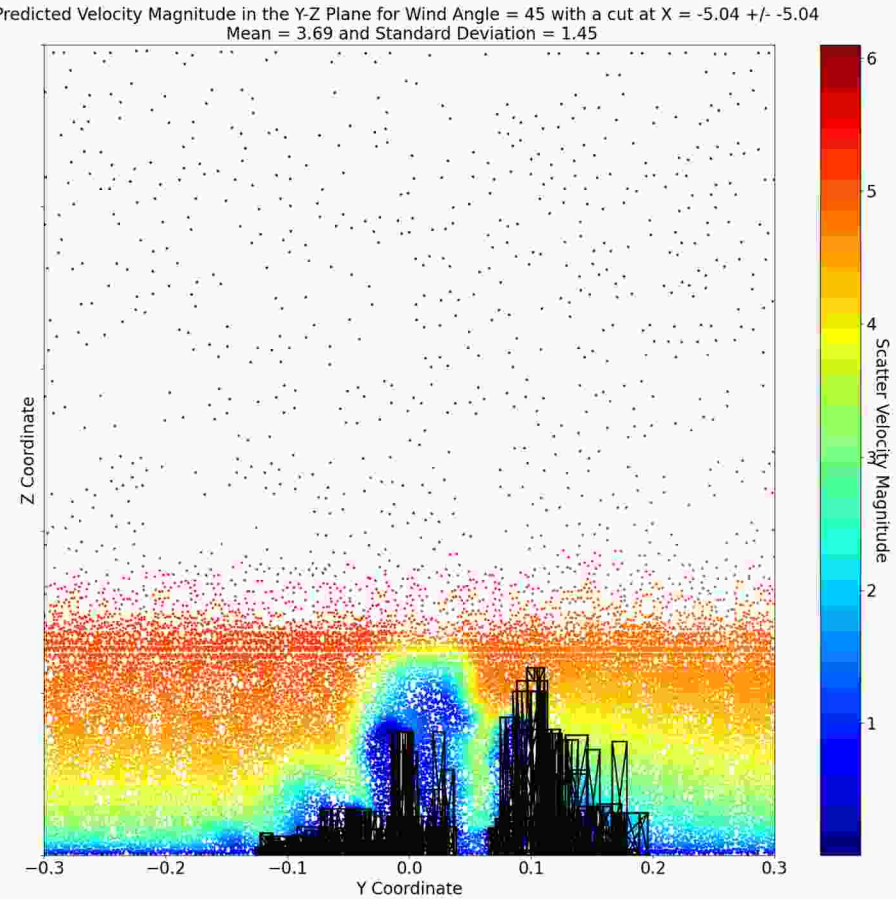
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



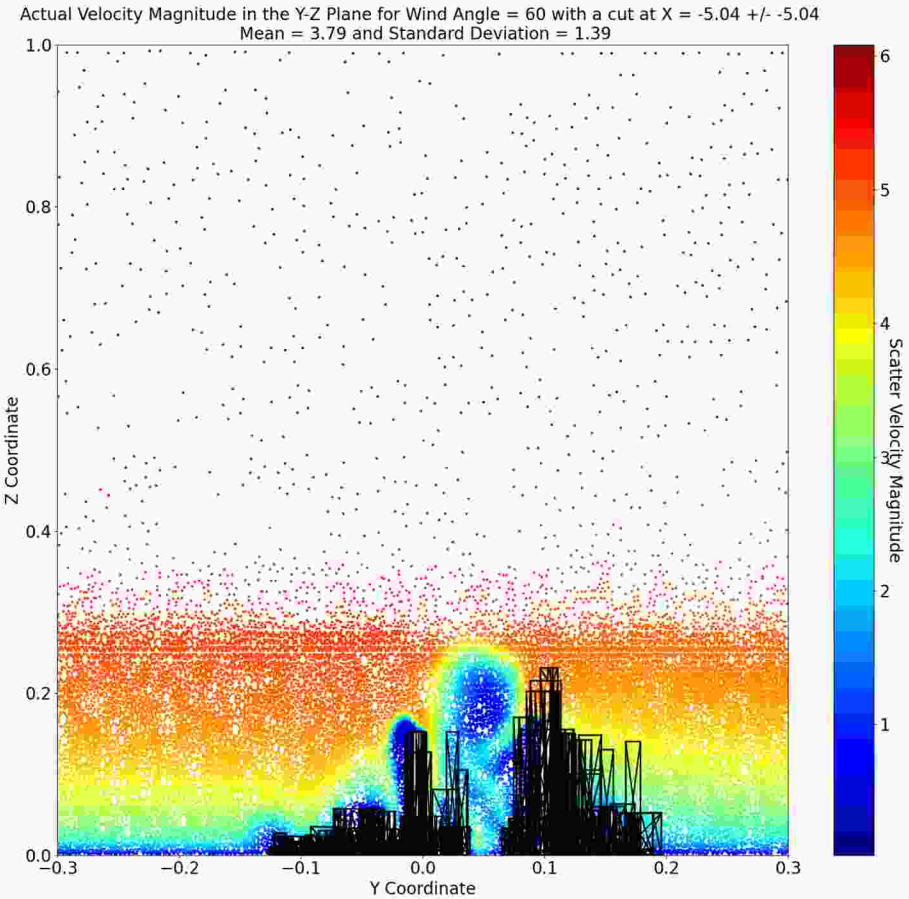


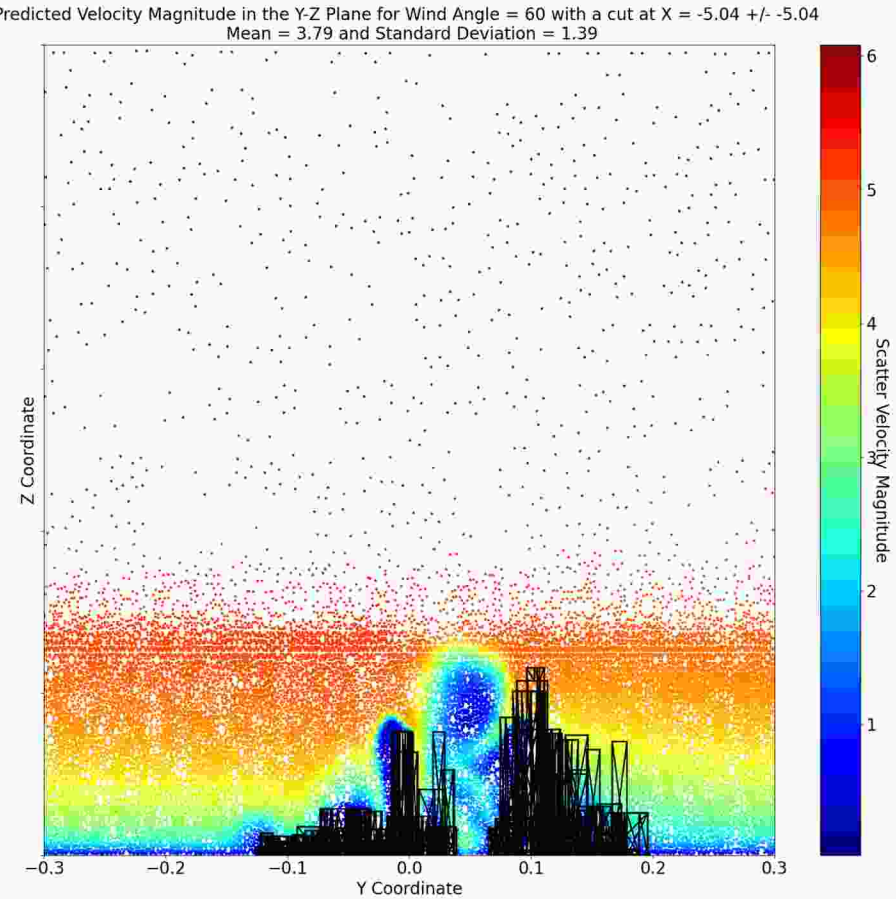
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



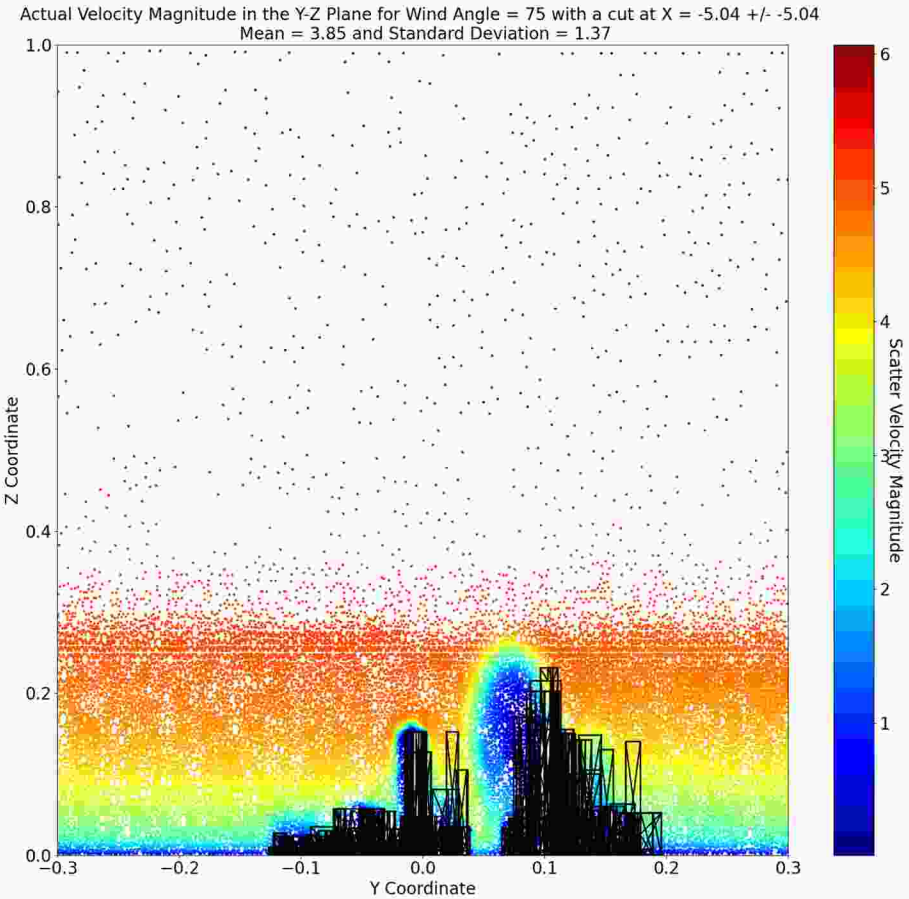


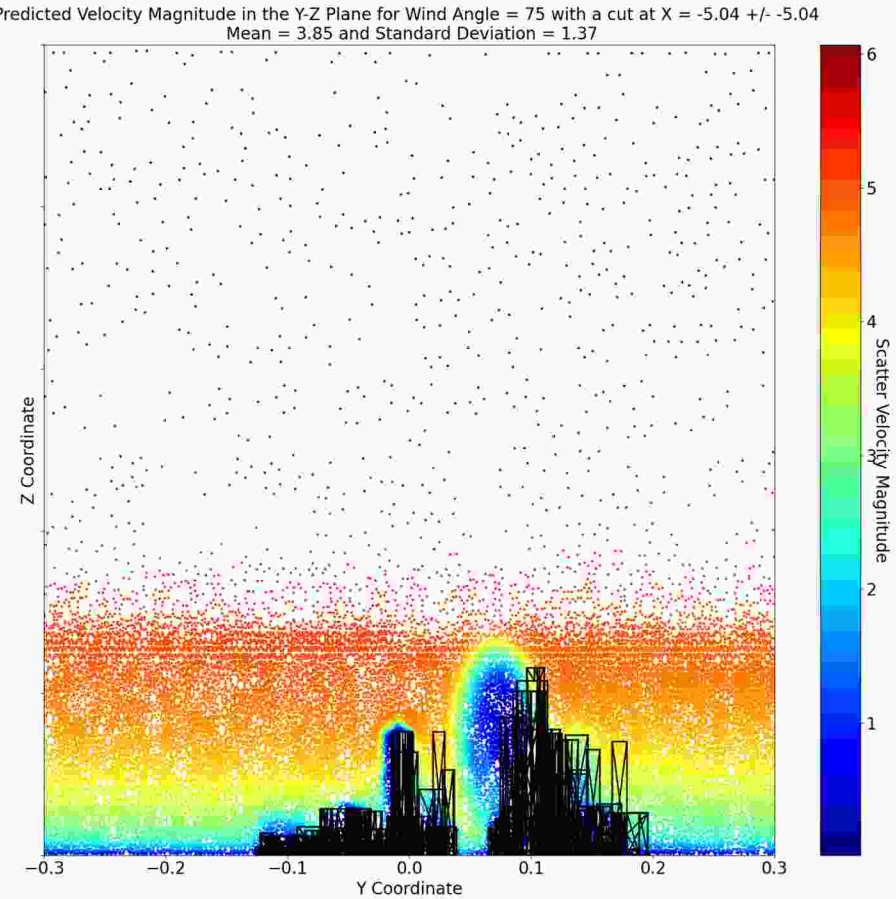
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



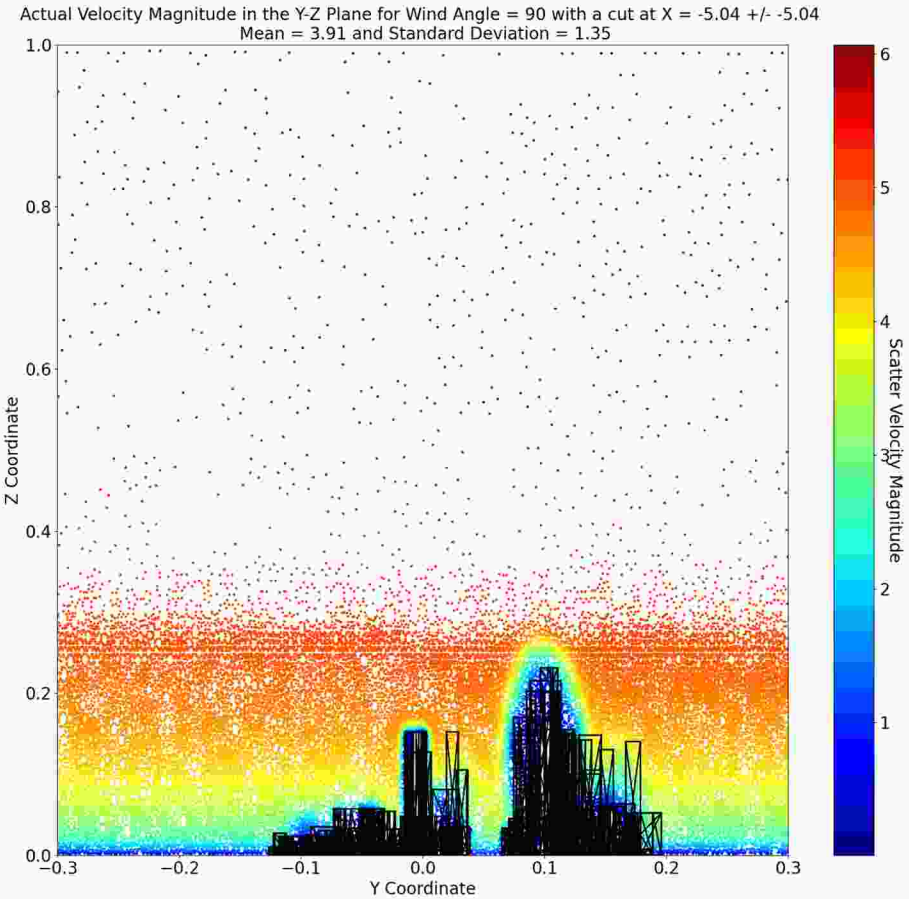


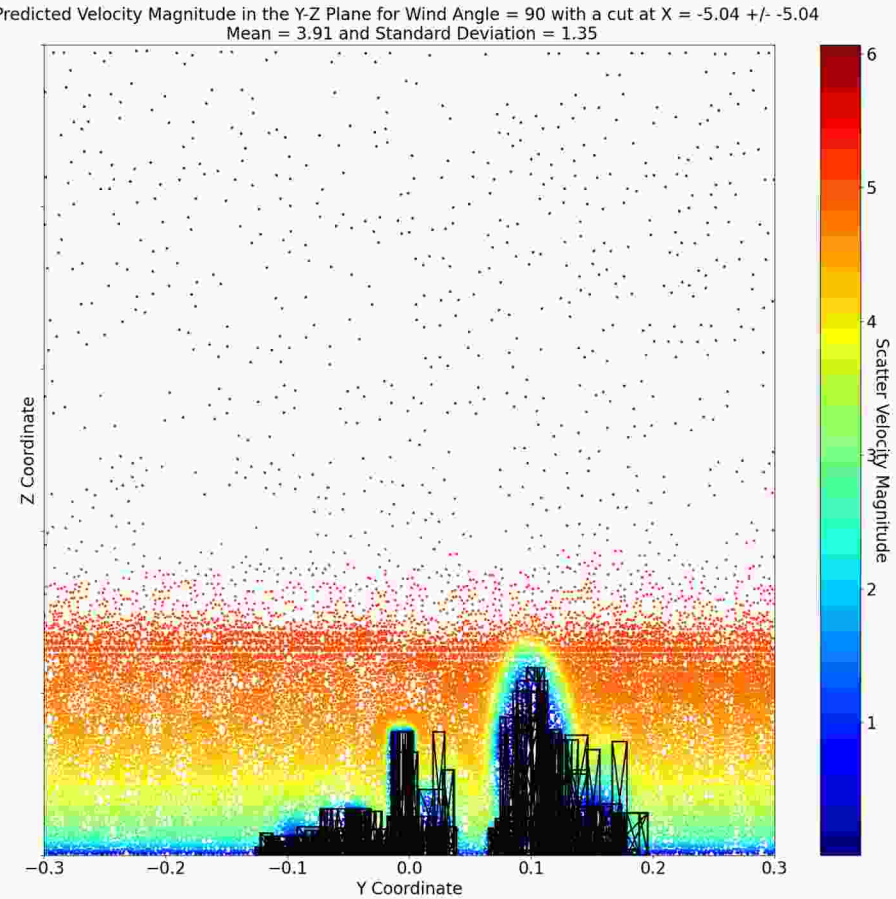
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



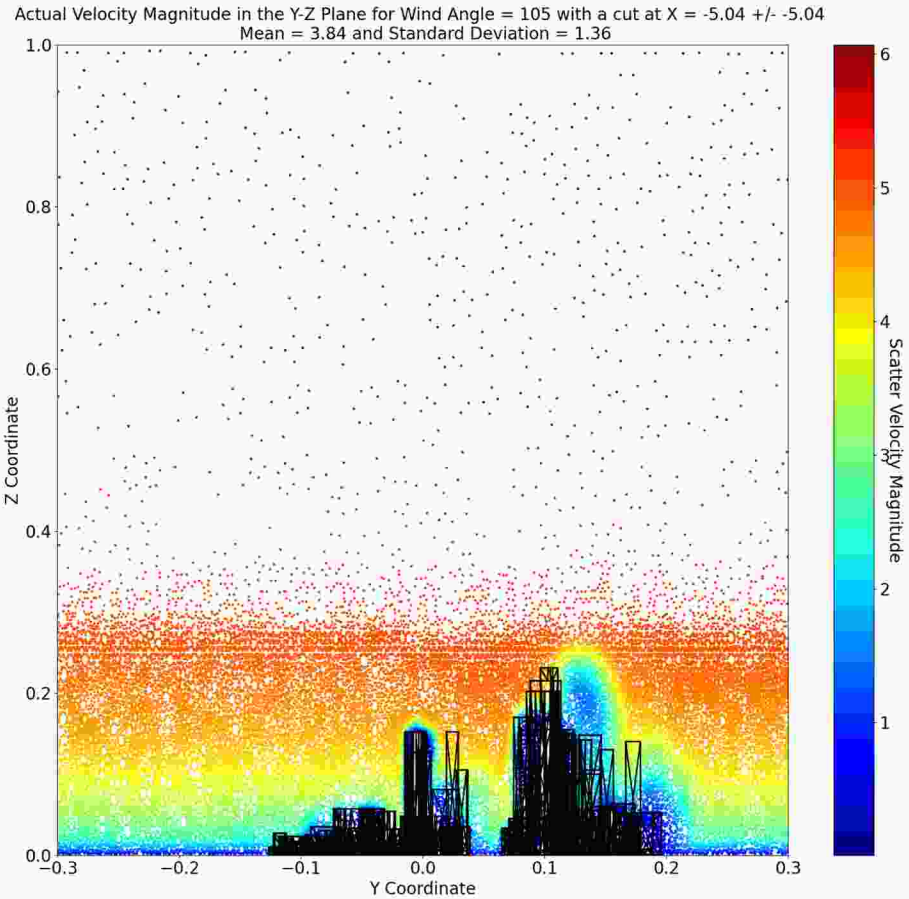


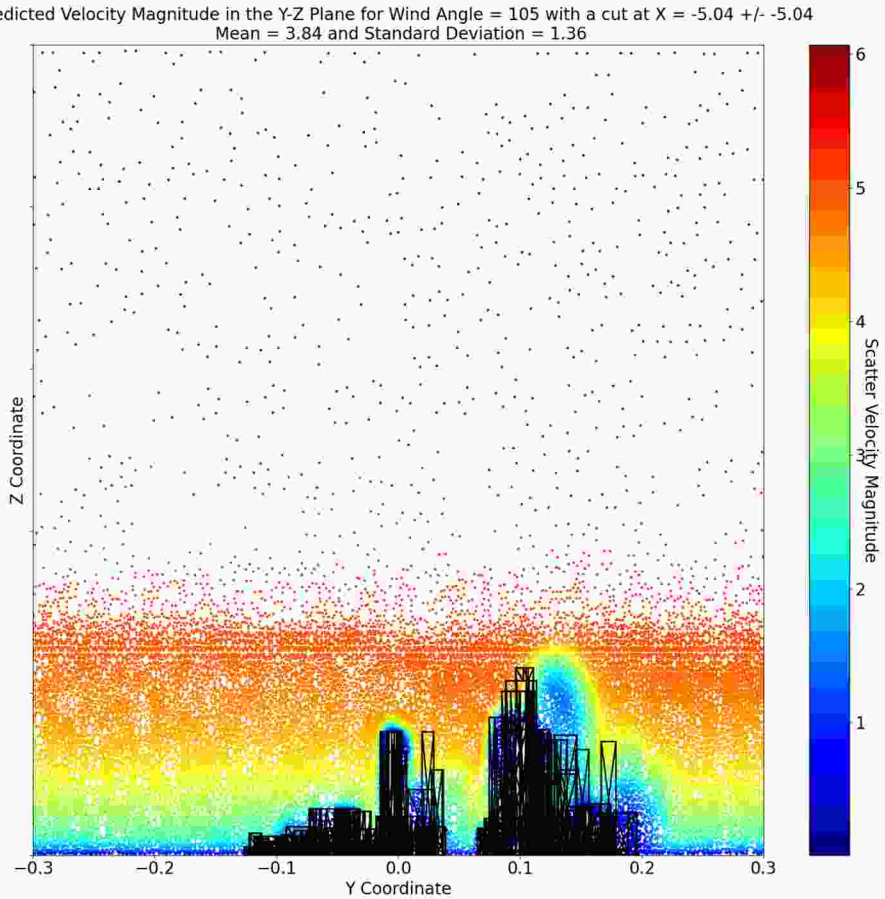
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



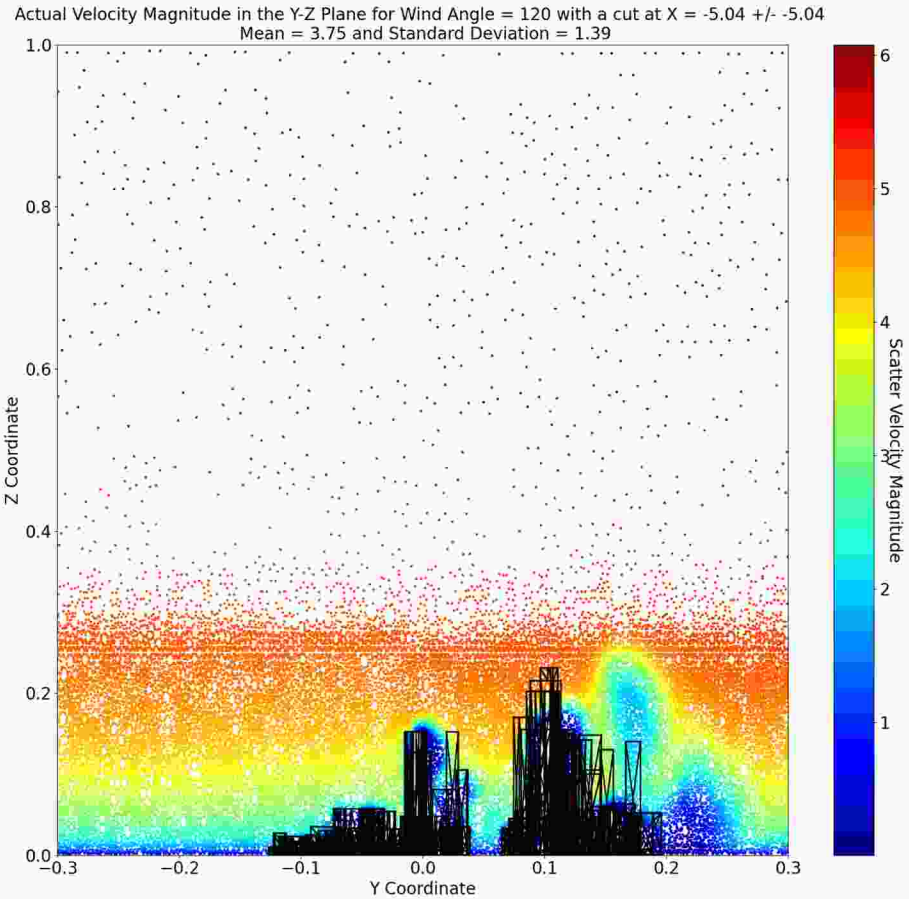


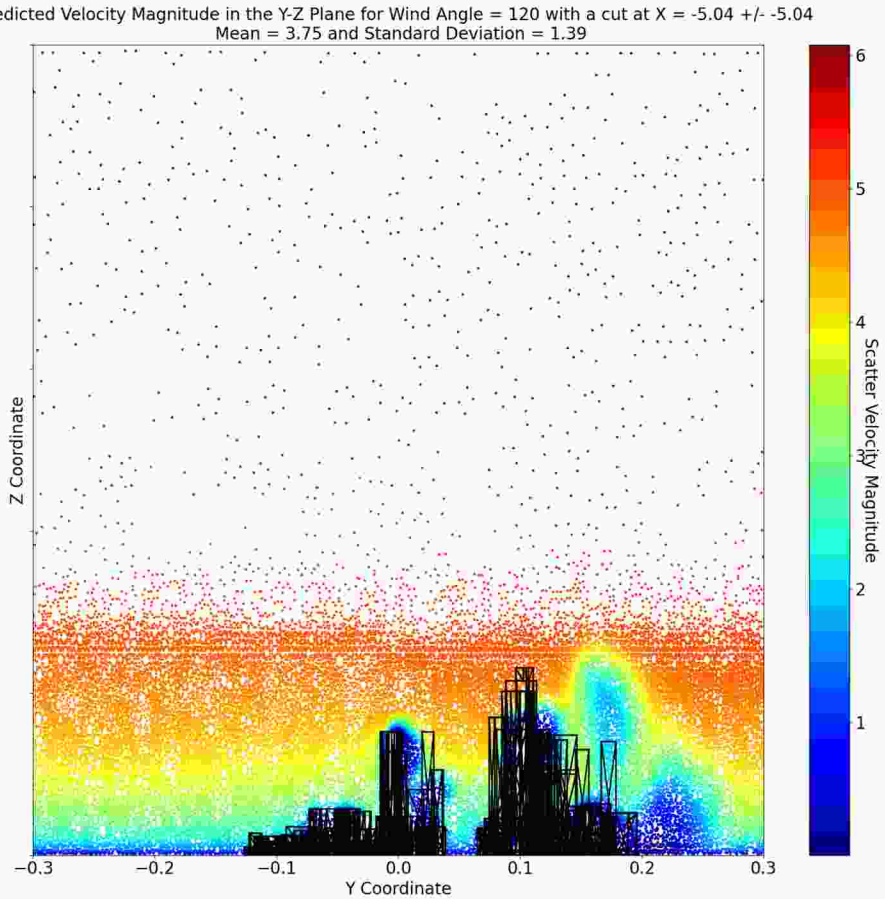
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



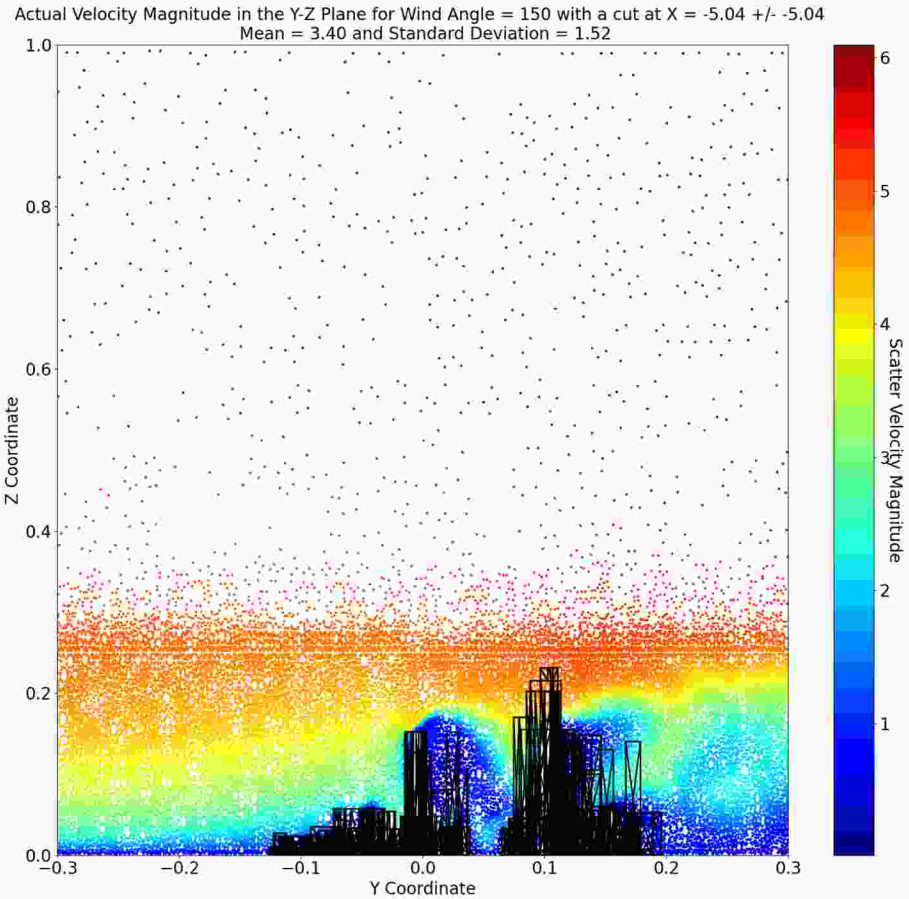


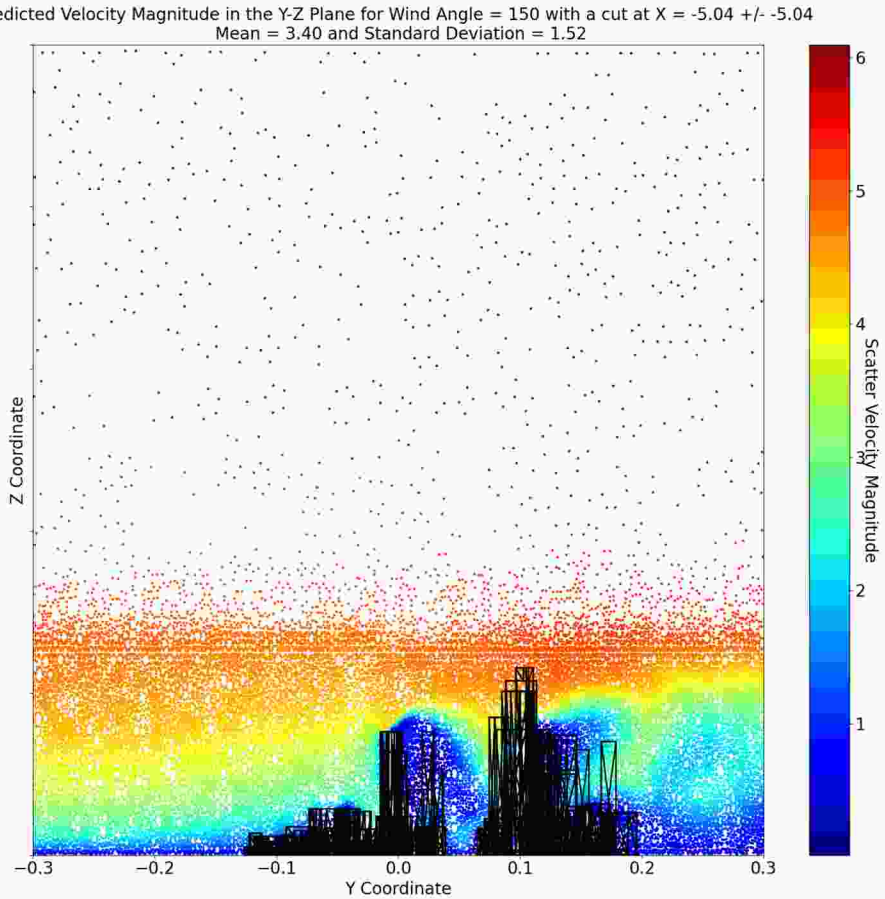
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



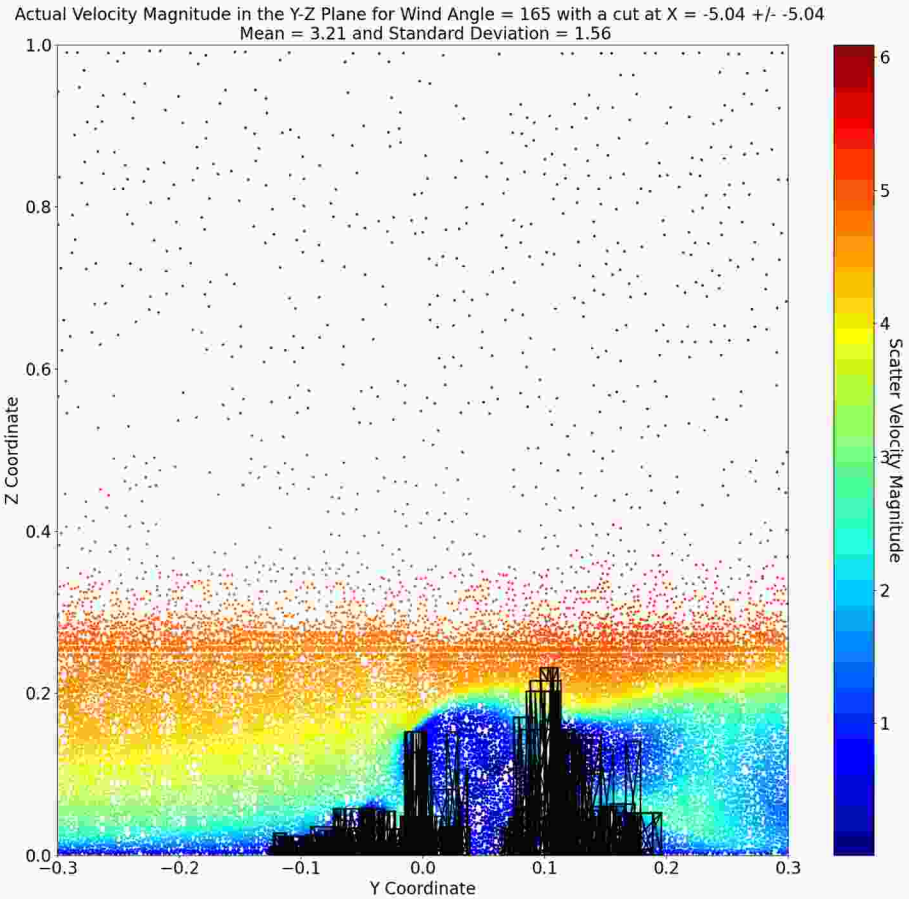


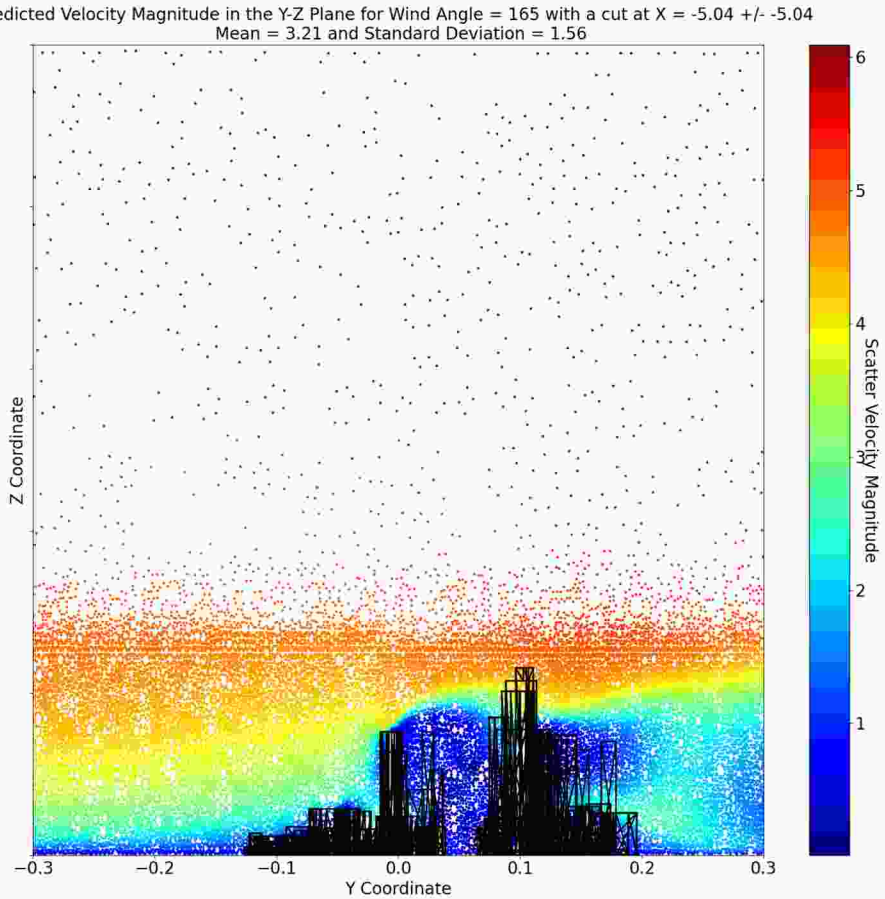
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



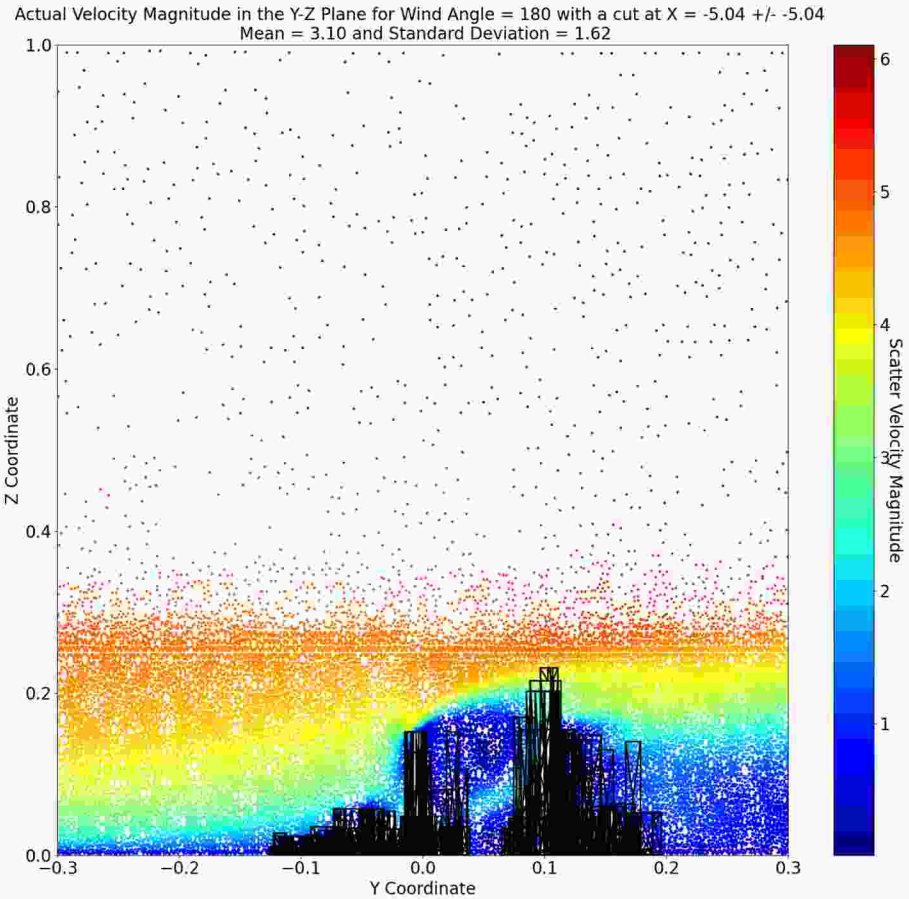


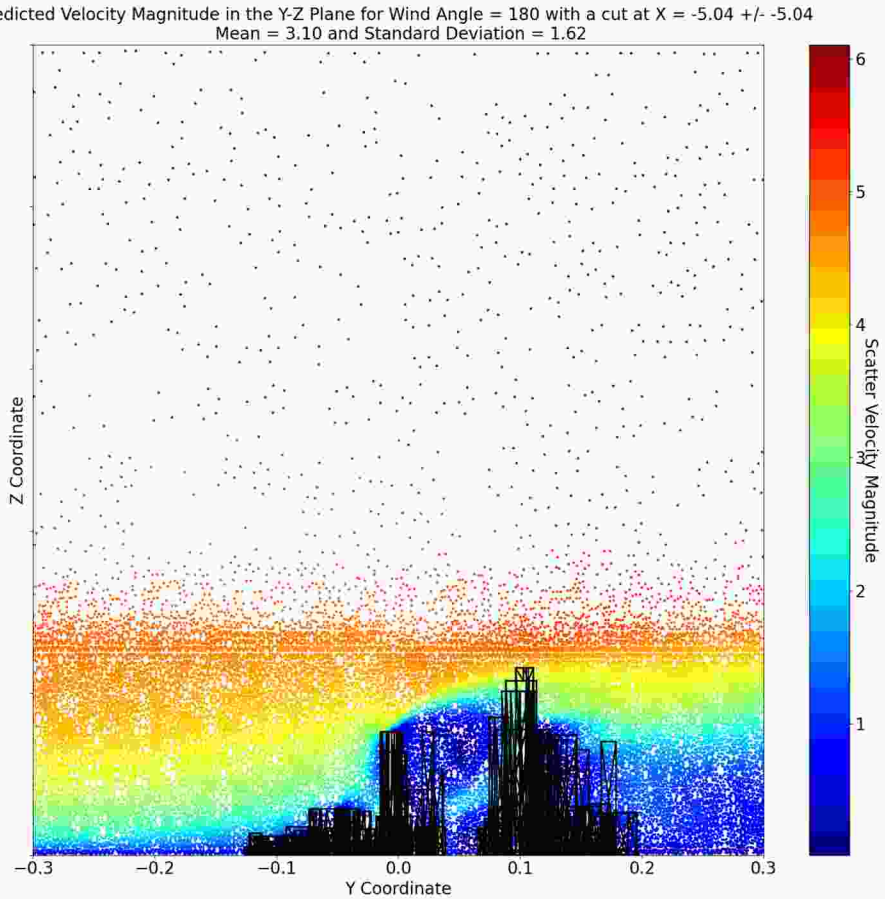
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

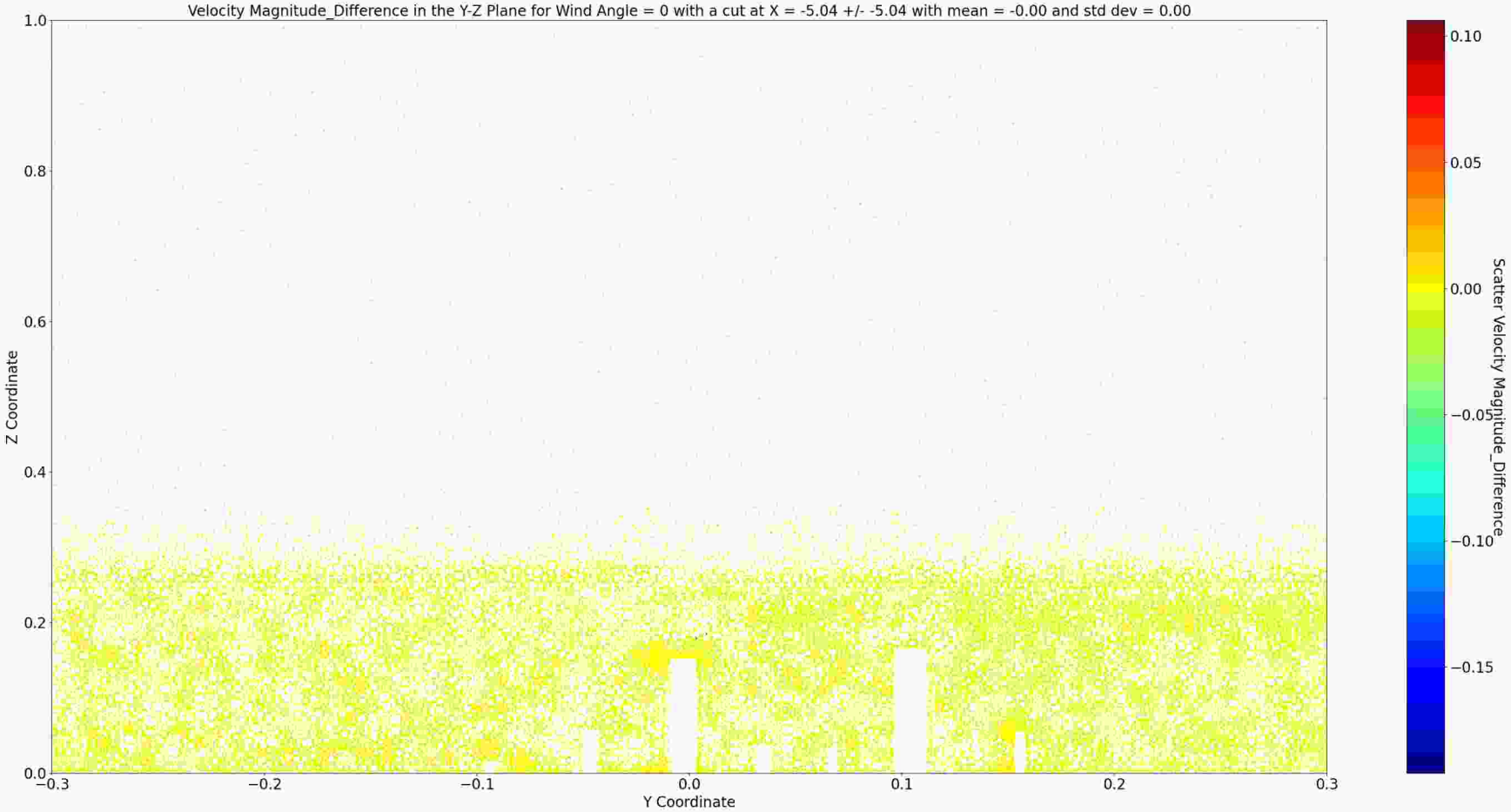


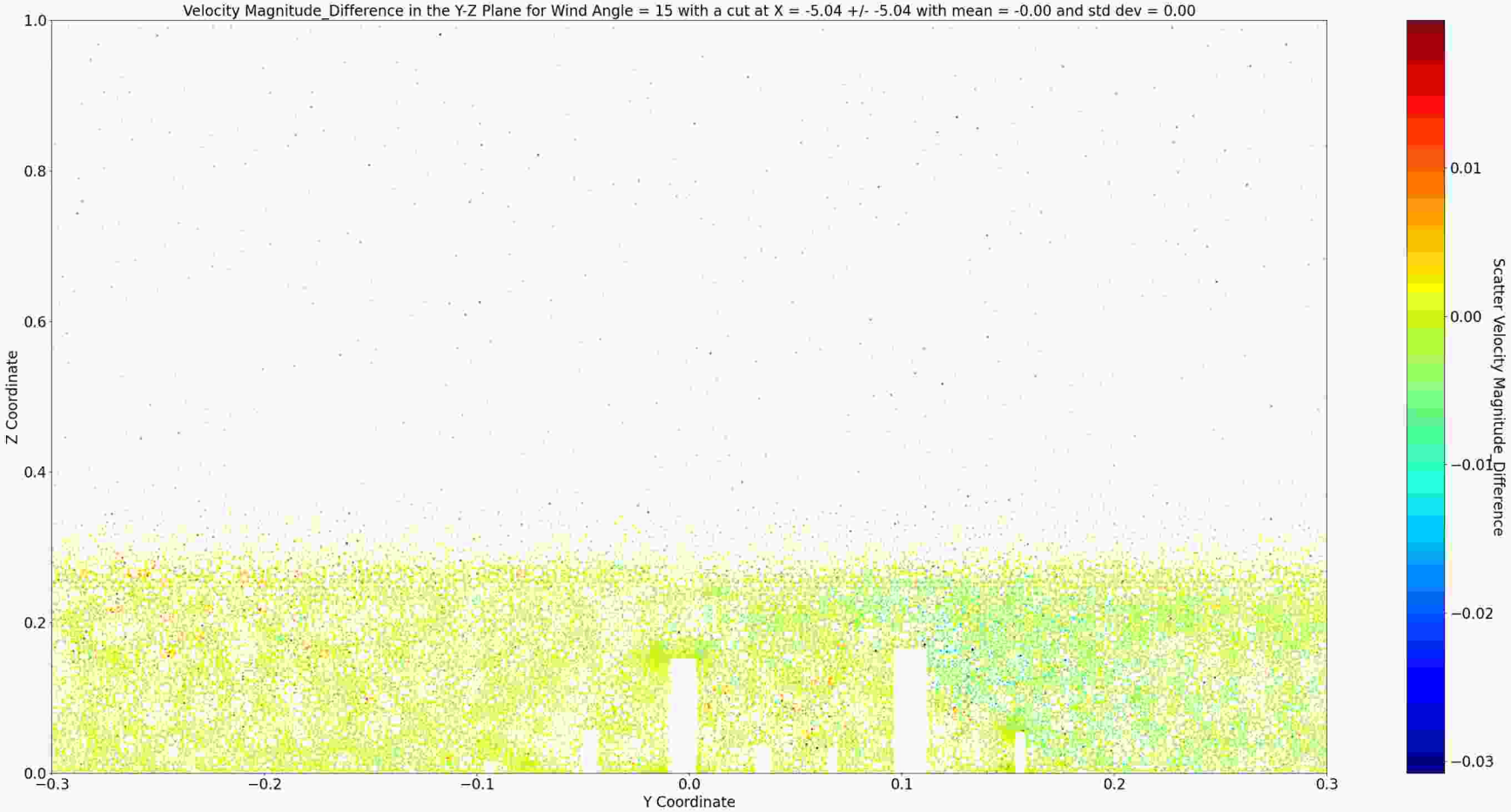


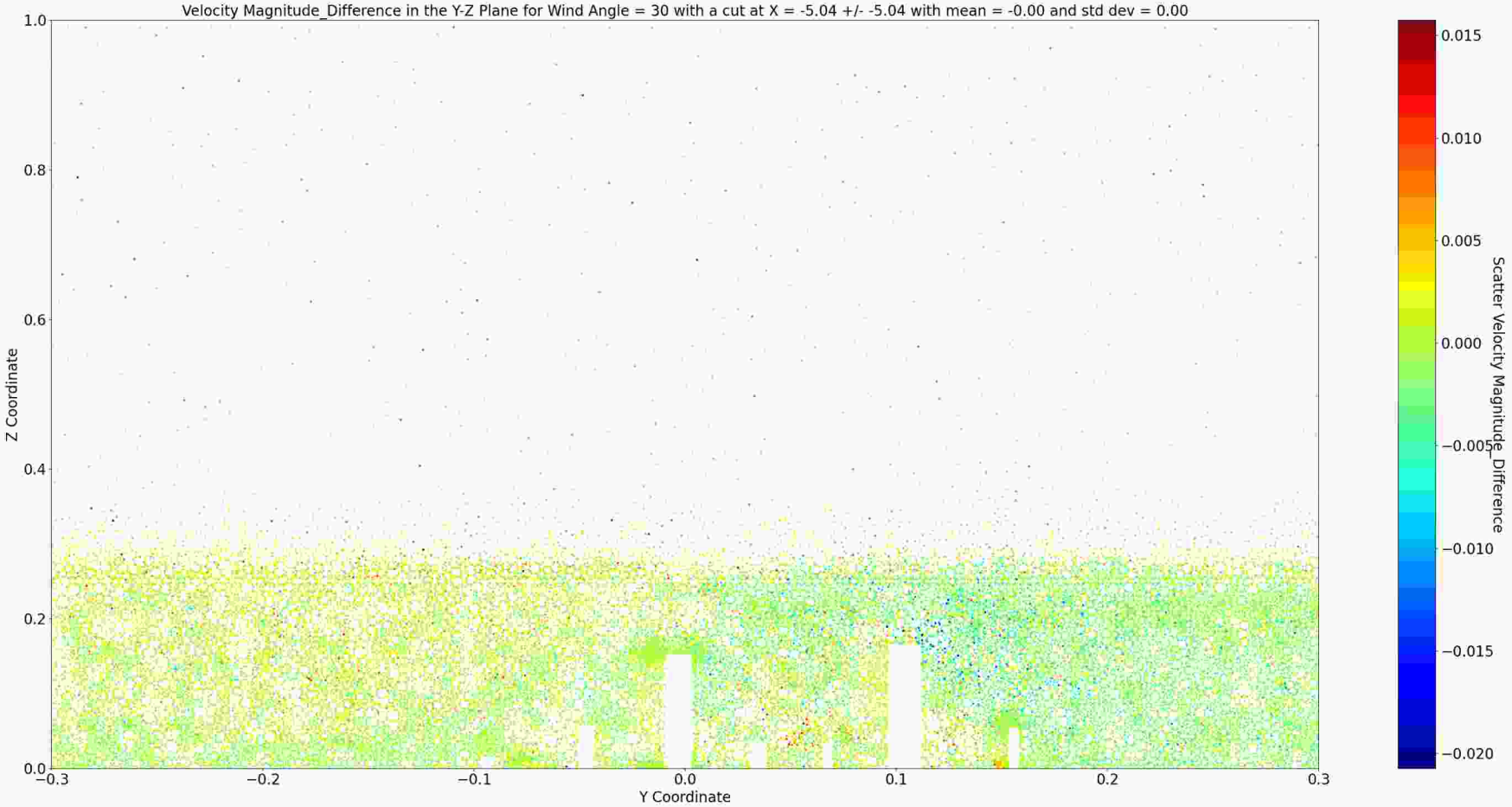
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

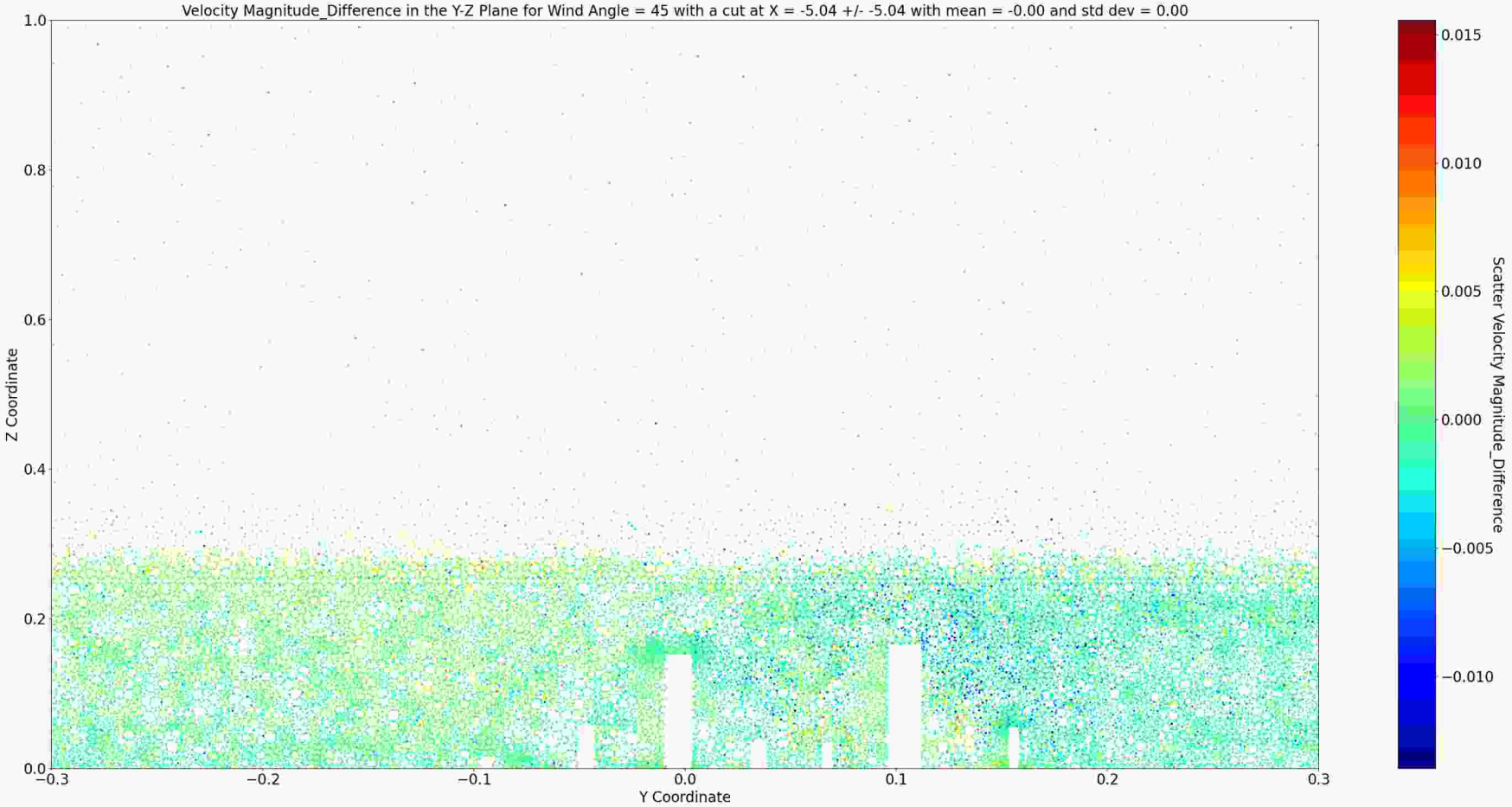


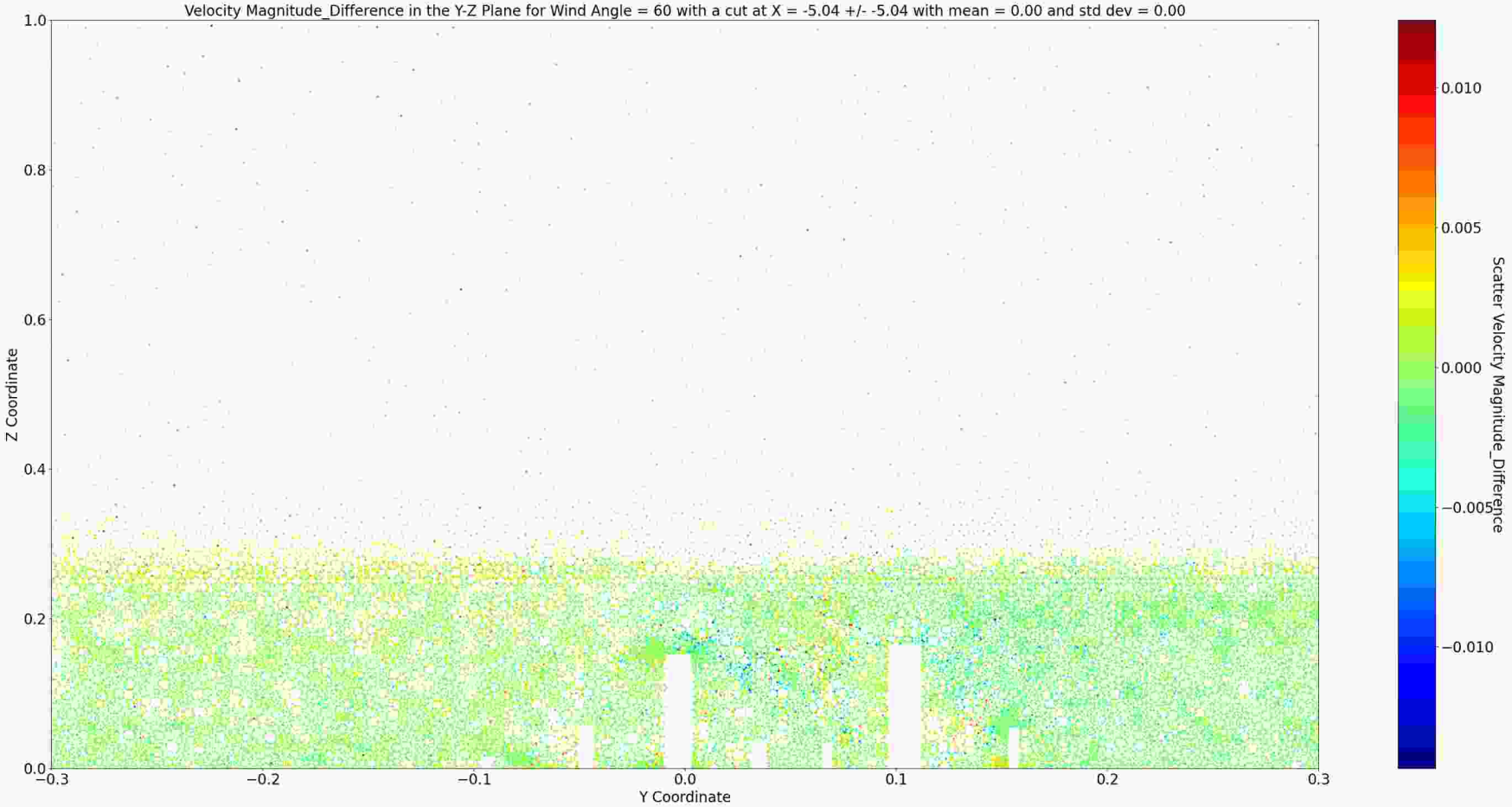


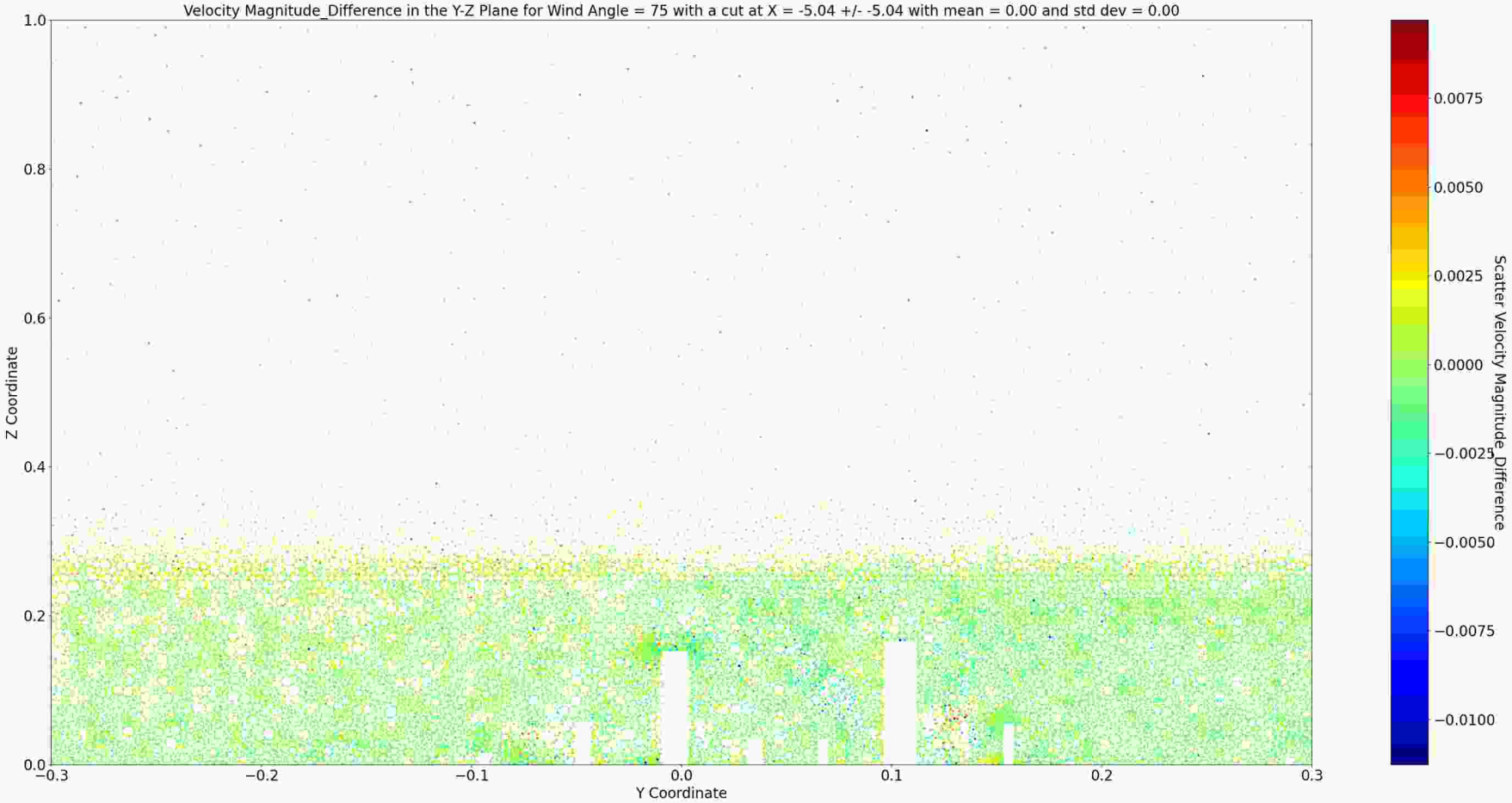

Velocity Magnitude_Difference in the Y-Z Plane for Wind Angle = 0 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.10
0.05
0.00
−0.05
−0.10
−0.15

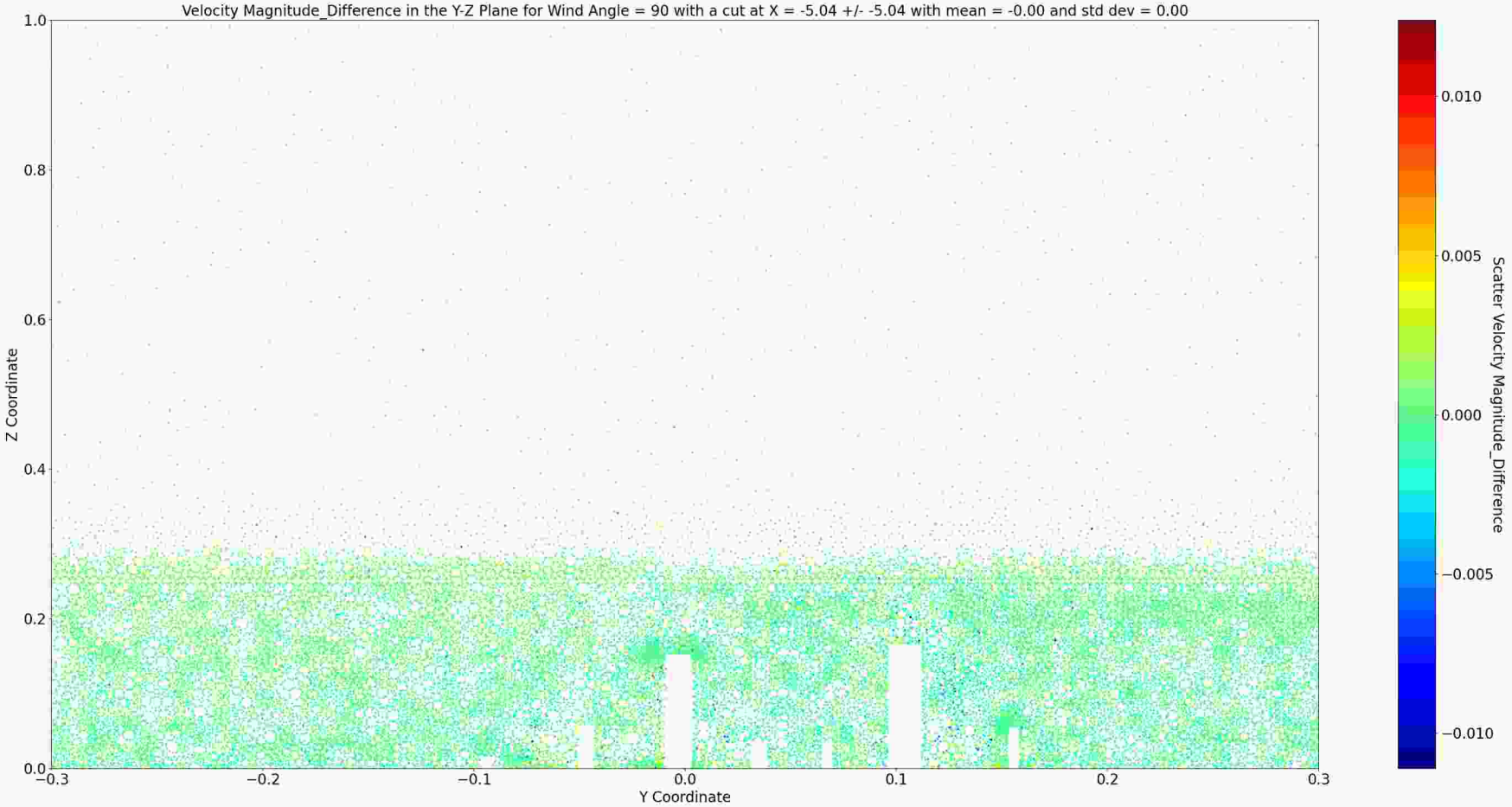

Velocity Magnitude_Difference in the Y-Z Plane for Wind Angle = 15 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.01
0.00
−0.01
−0.02
−0.03

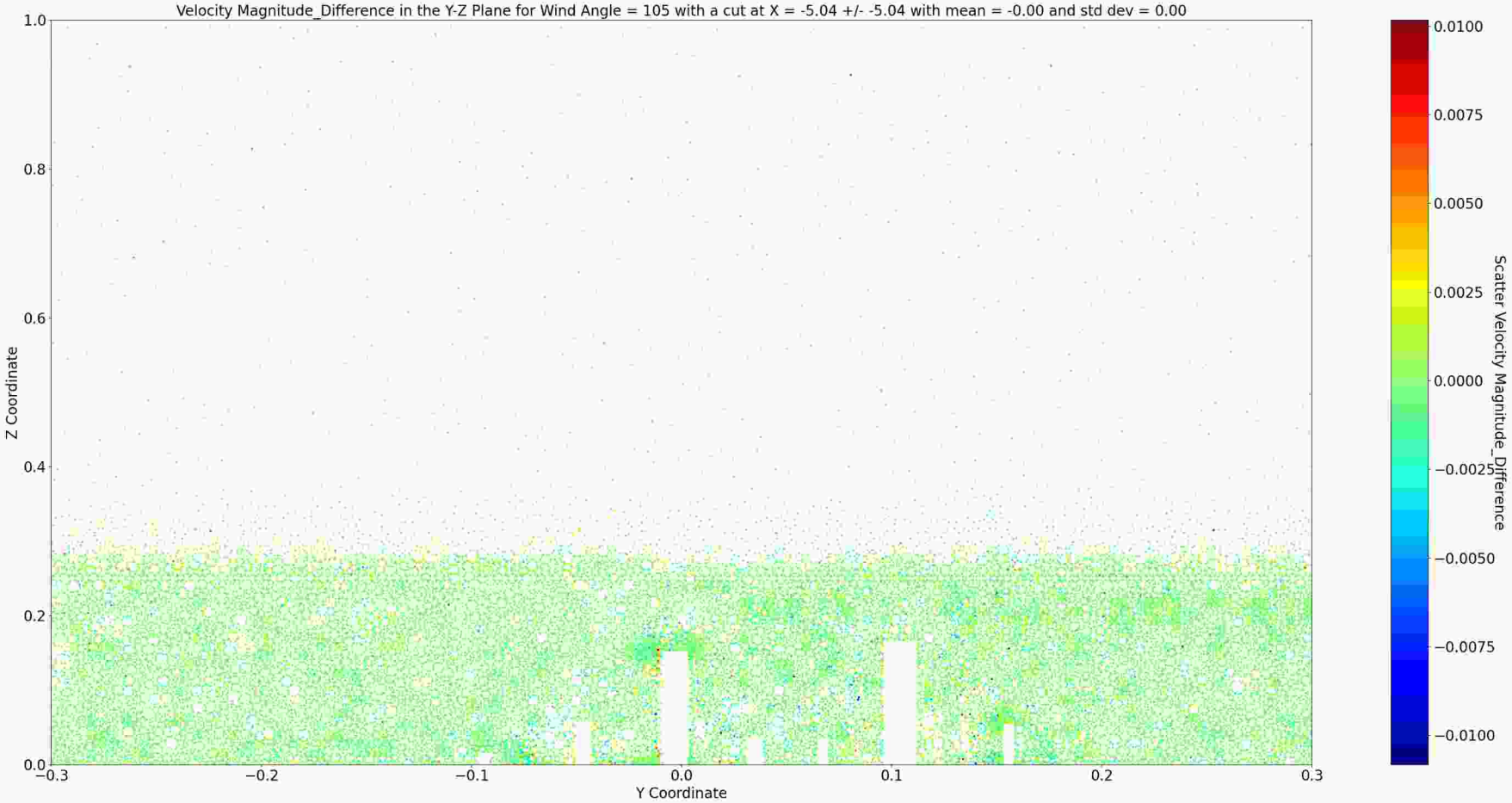

Velocity Magnitude_Difference in the Y-Z Plane for Wind Angle = 30 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015
−0.020

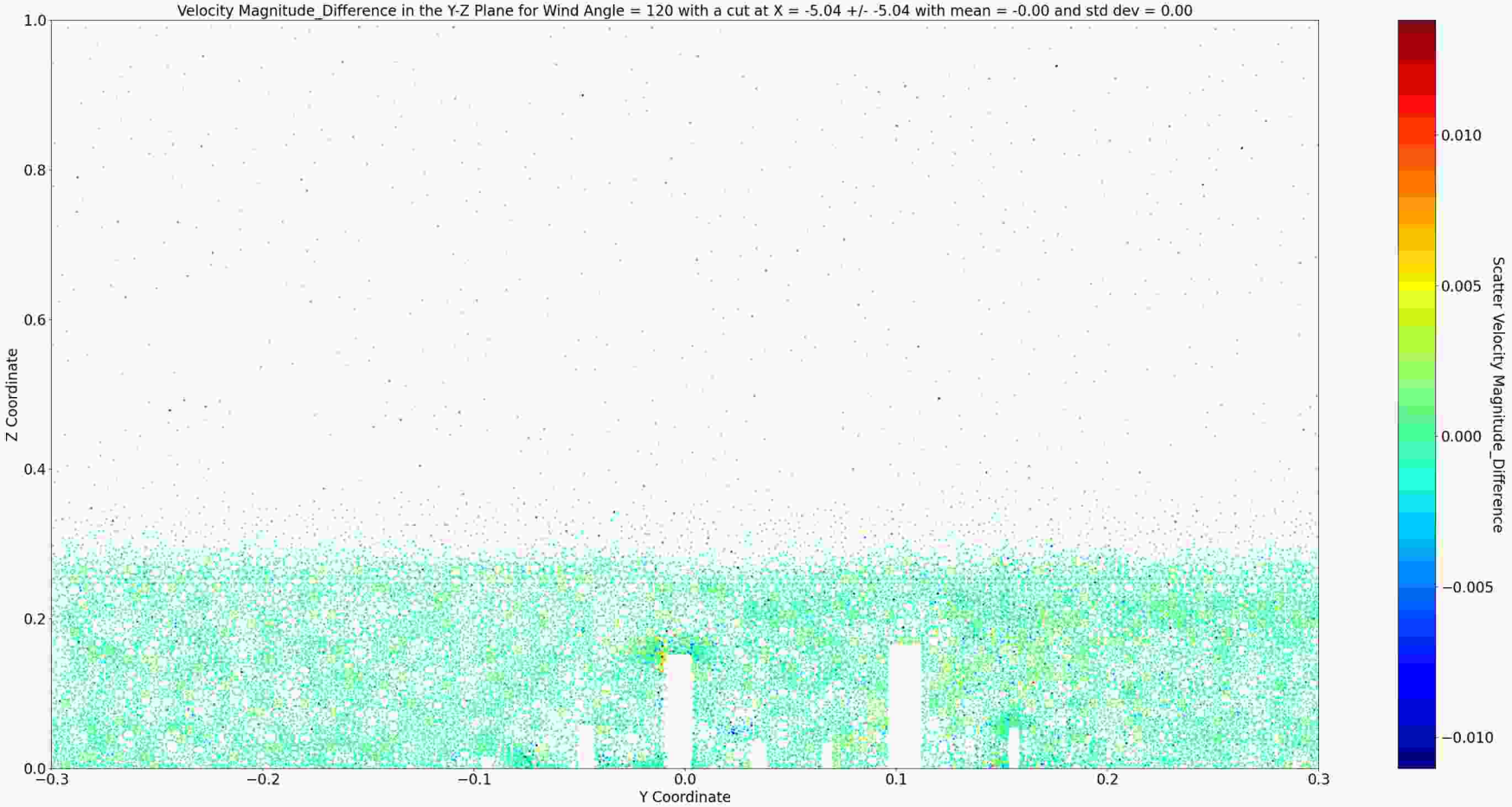

Velocity Magnitude_Difference in the Y-Z Plane for Wind Angle = 45 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.015
0.010
0.005
0.000
−0.005
−0.010

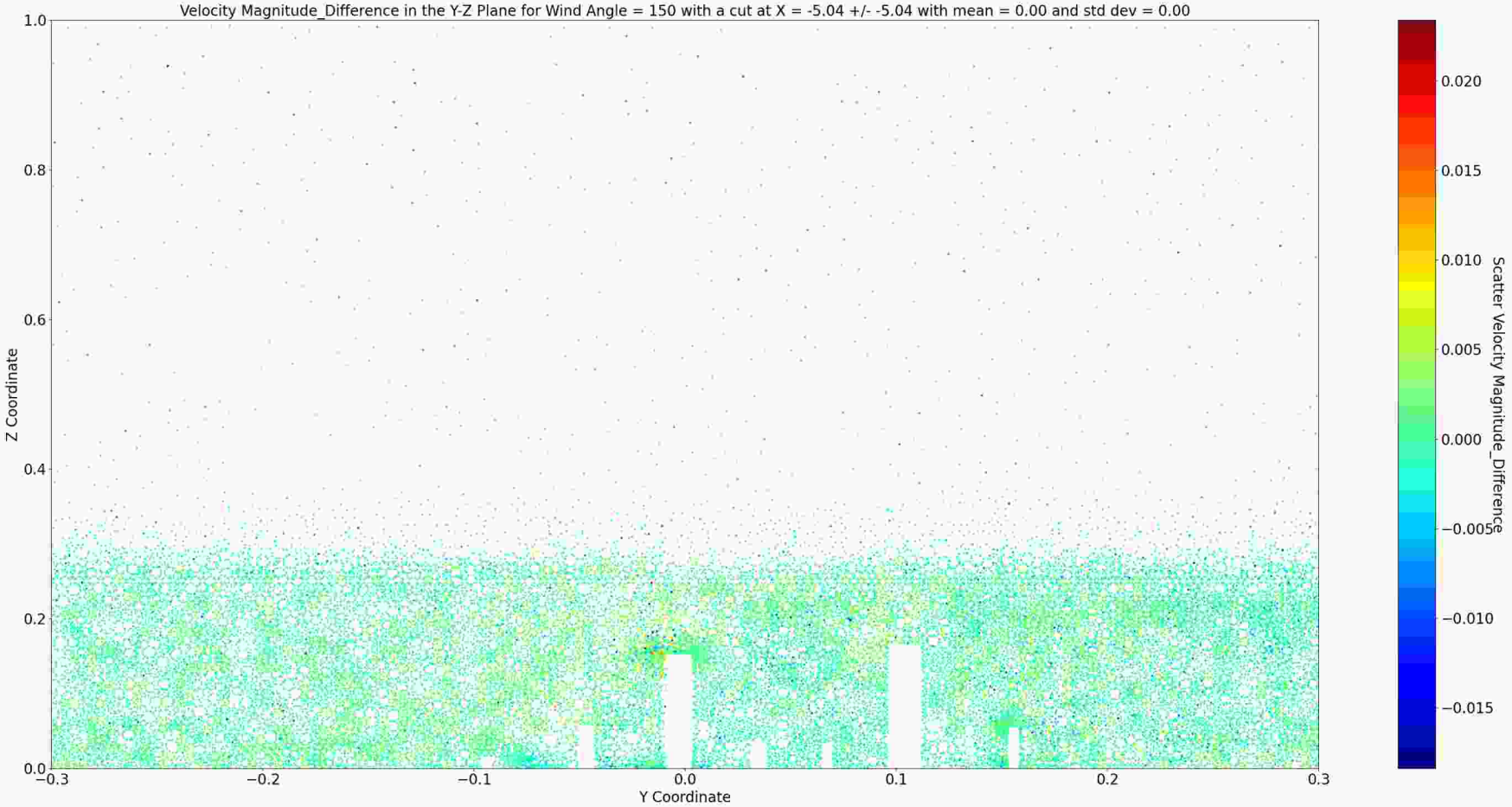

Velocity Magnitude_Difference in the Y-Z Plane for Wind Angle = 60 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010

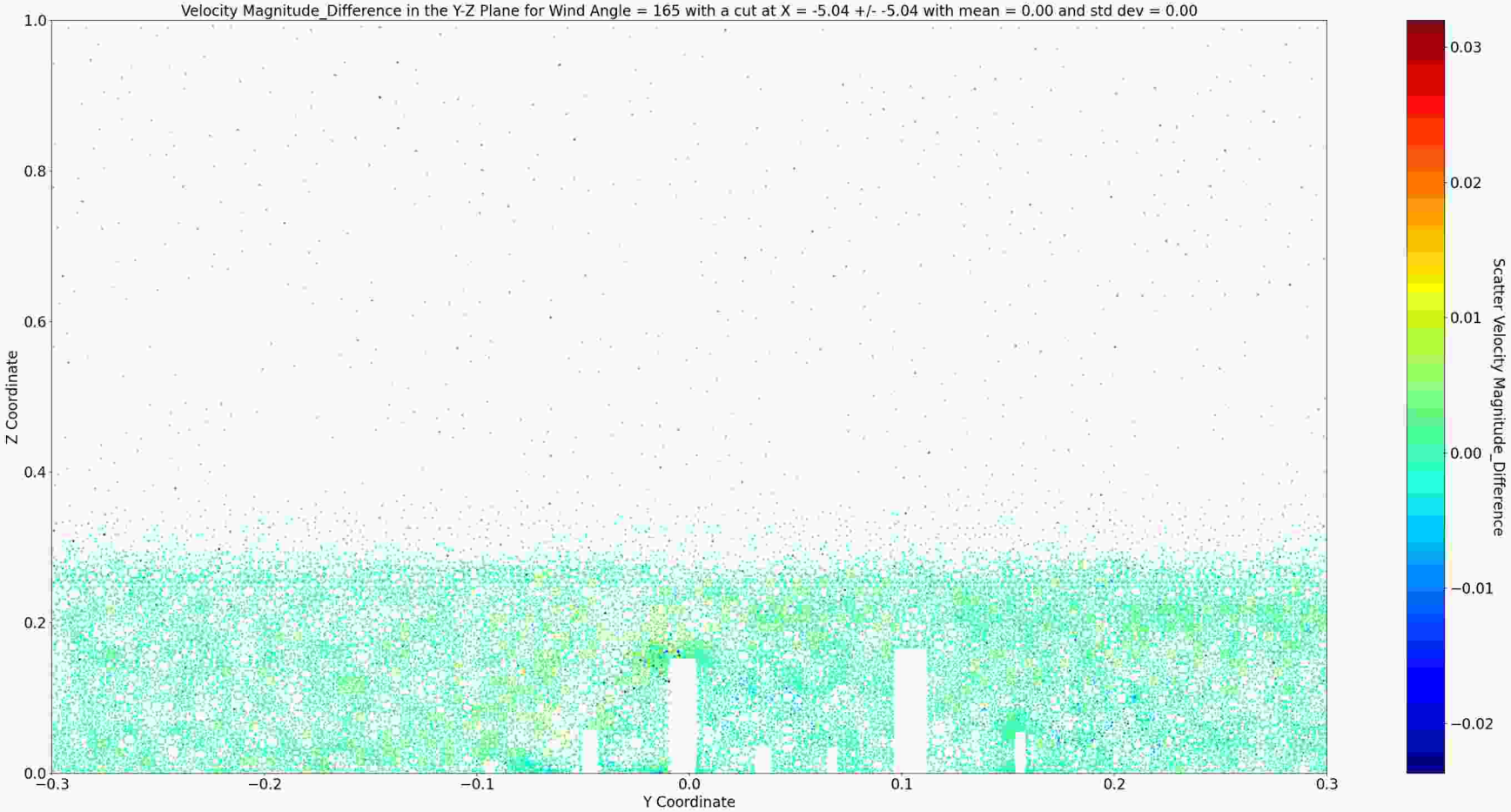

Velocity Magnitude_Difference in the Y-Z Plane for Wind Angle = 75 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075
−0.0100

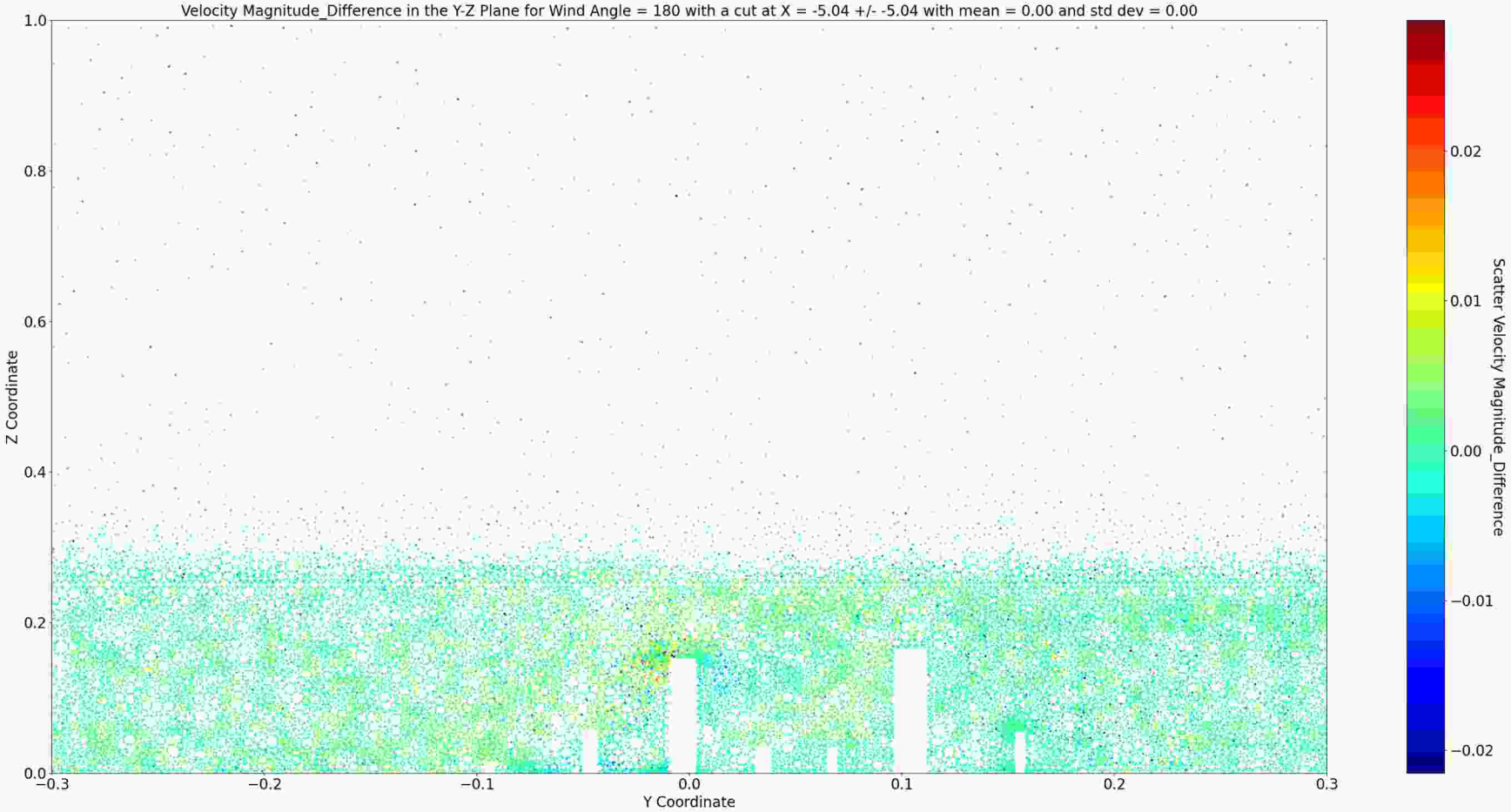

Velocity Magnitude_Difference in the Y-Z Plane for Wind Angle = 90 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010


Velocity Magnitude_Difference in the Y-Z Plane for Wind Angle = 105 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0100
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075
−0.0100

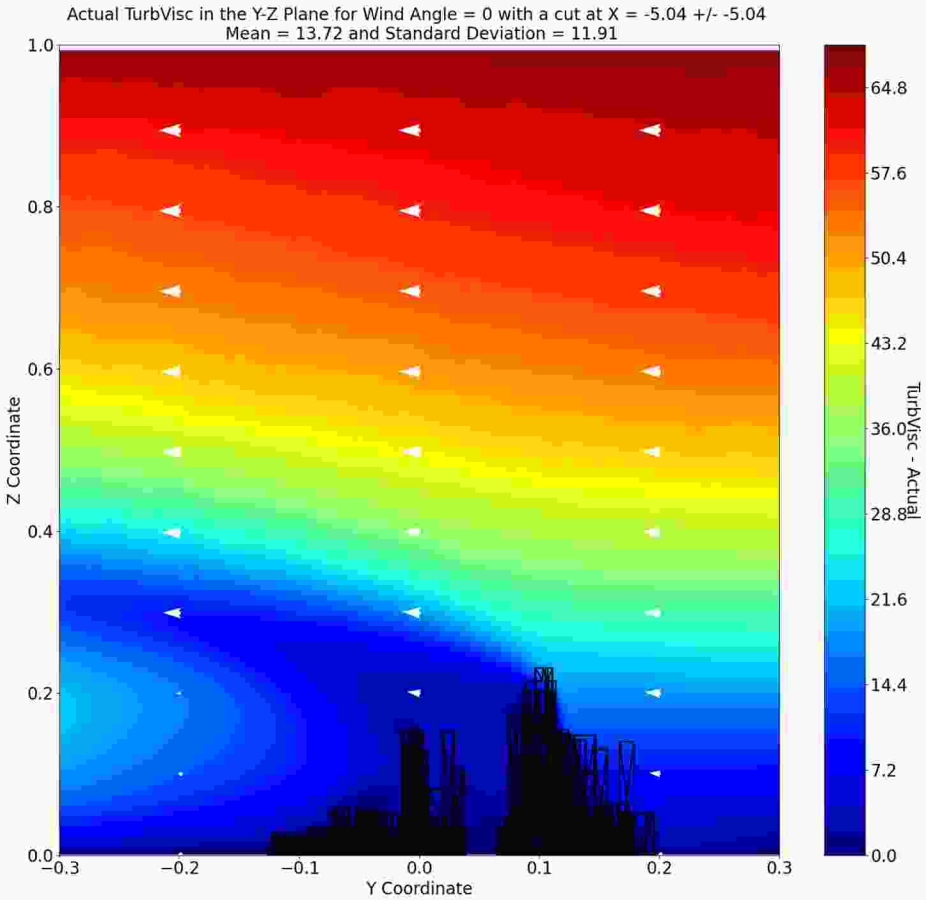

Velocity Magnitude_Difference in the Y-Z Plane for Wind Angle = 120 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010

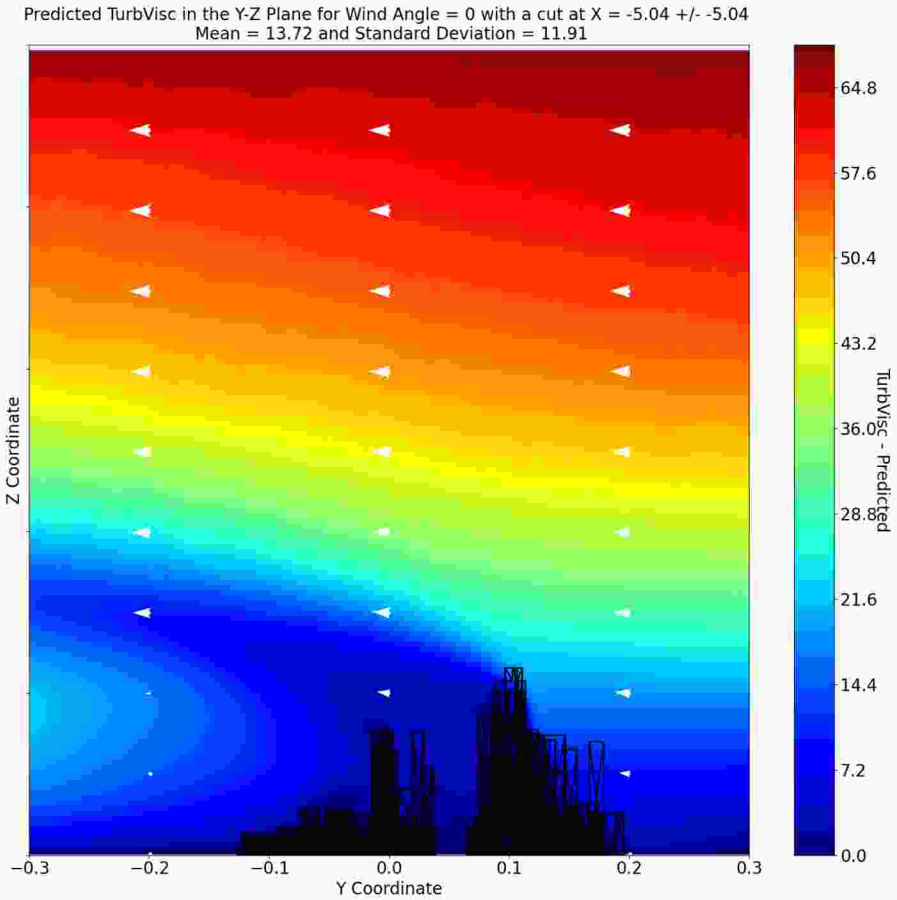

Velocity Magnitude_Difference in the Y-Z Plane for Wind Angle = 150 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015


Velocity Magnitude_Difference in the Y-Z Plane for Wind Angle = 165 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.03
0.02
0.01
0.00
−0.01
−0.02

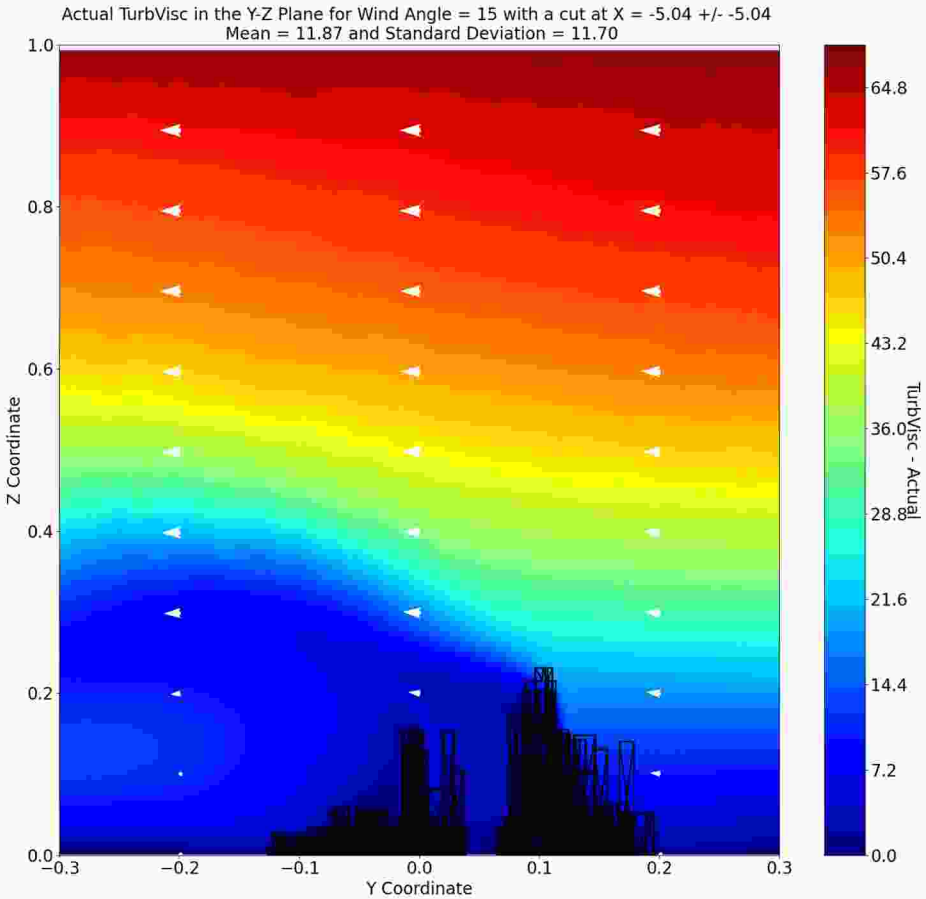

Velocity Magnitude_Difference in the Y-Z Plane for Wind Angle = 180 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.02
0.01
0.00
−0.01
−0.02

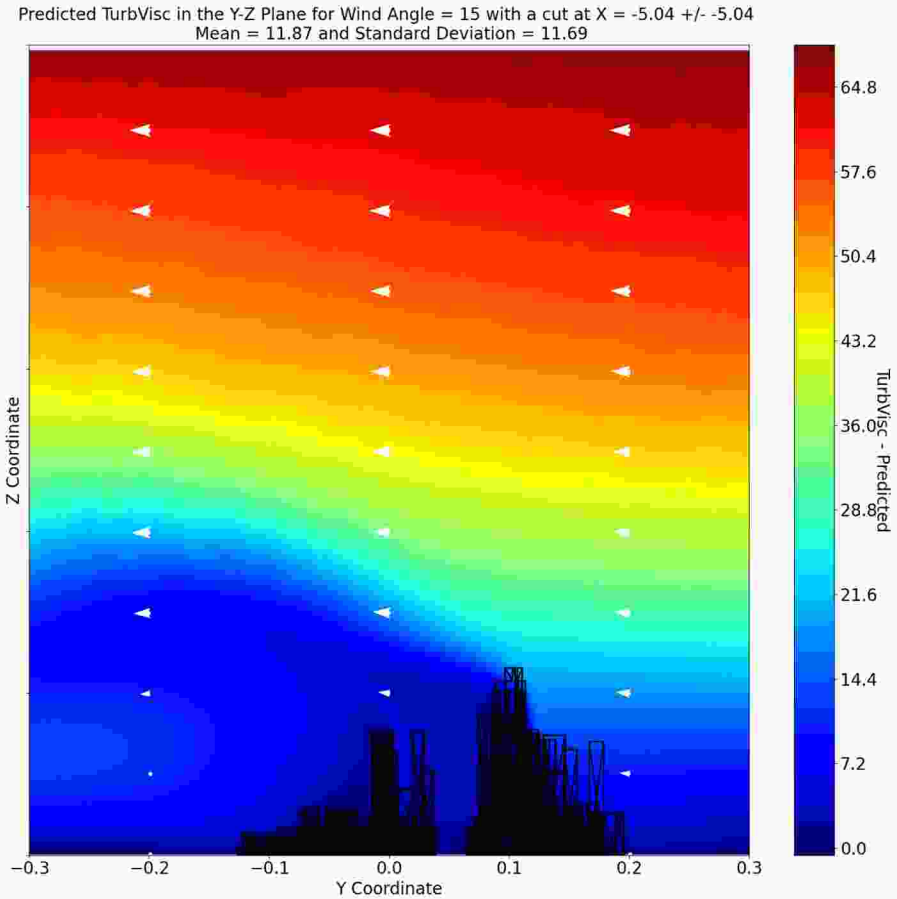
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



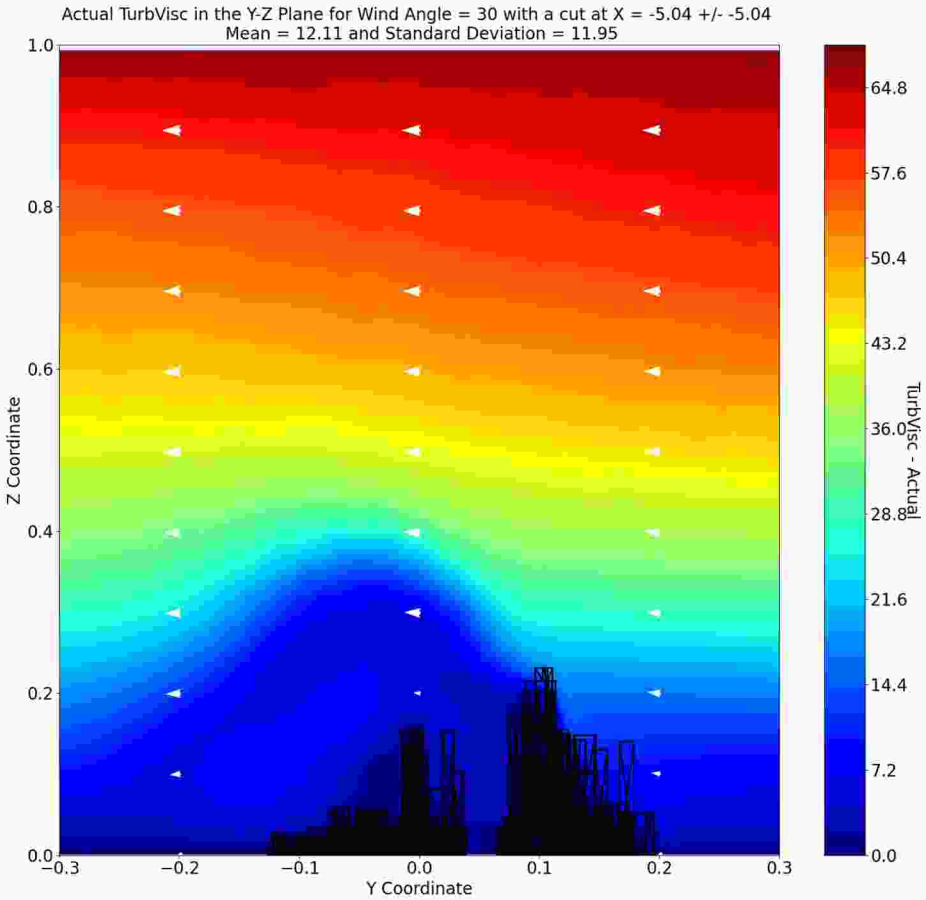


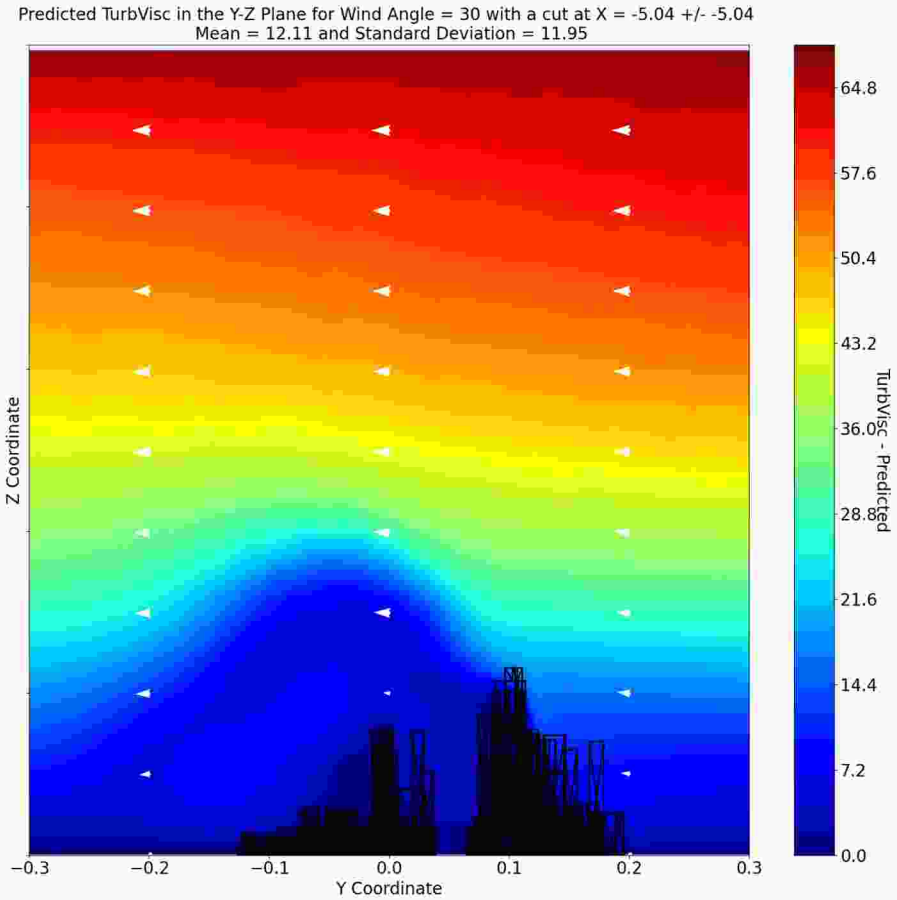
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



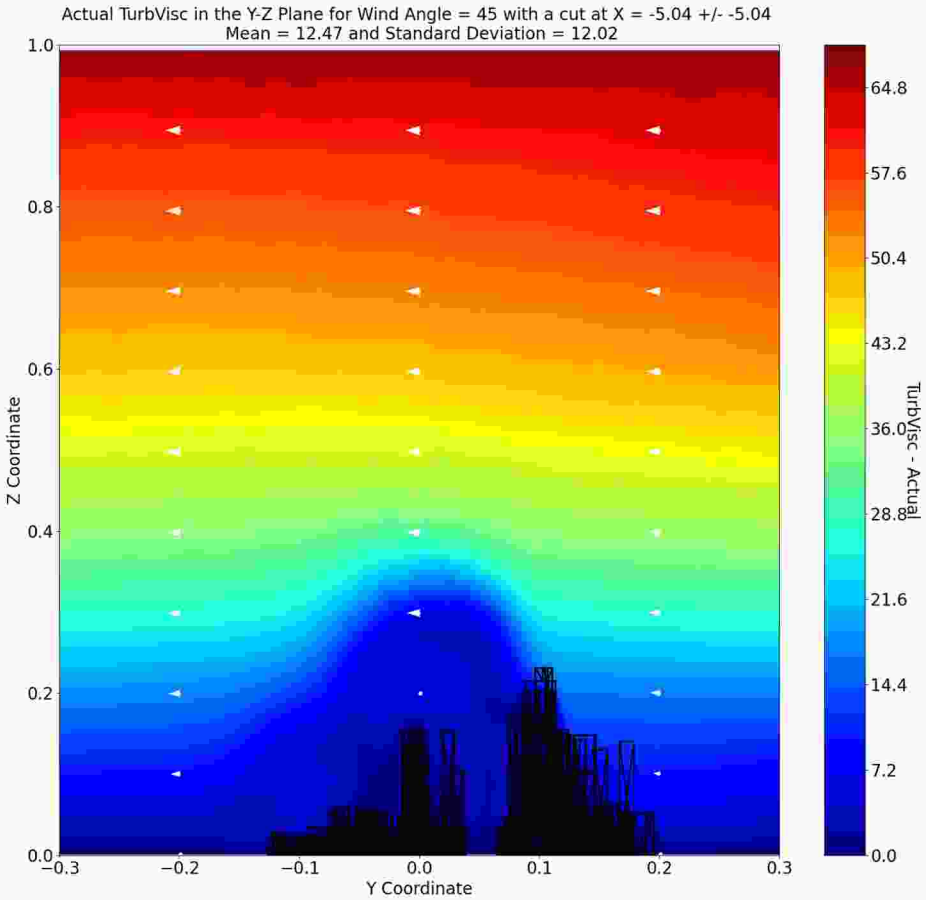


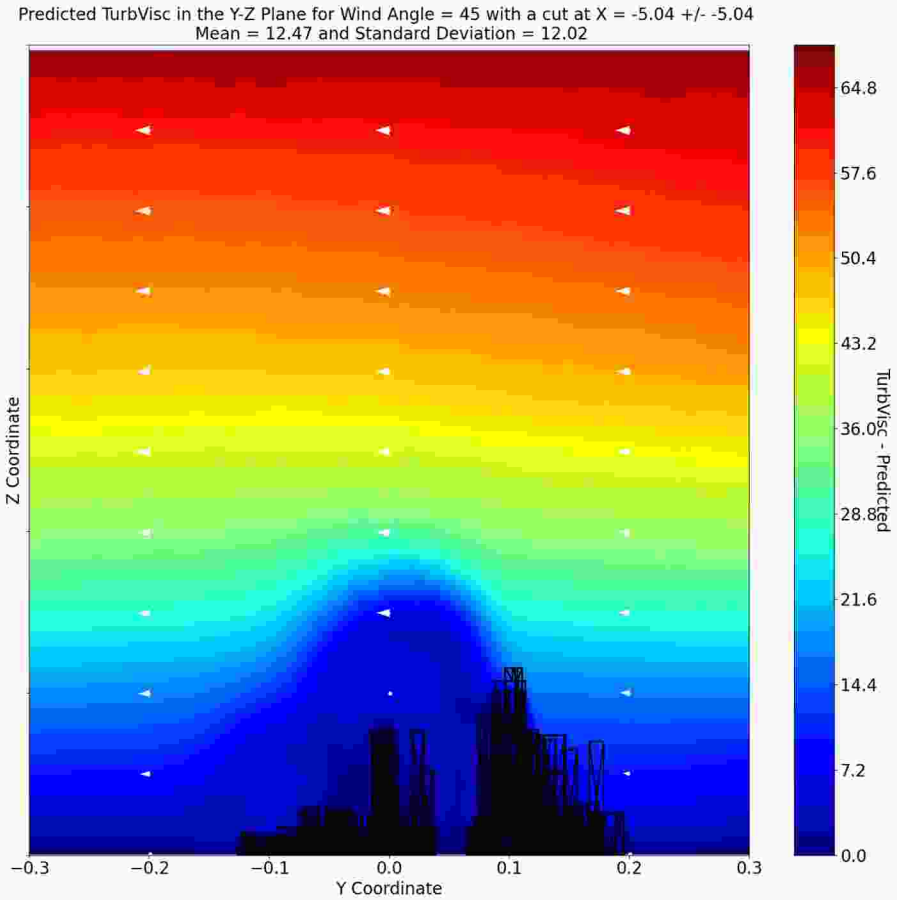
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



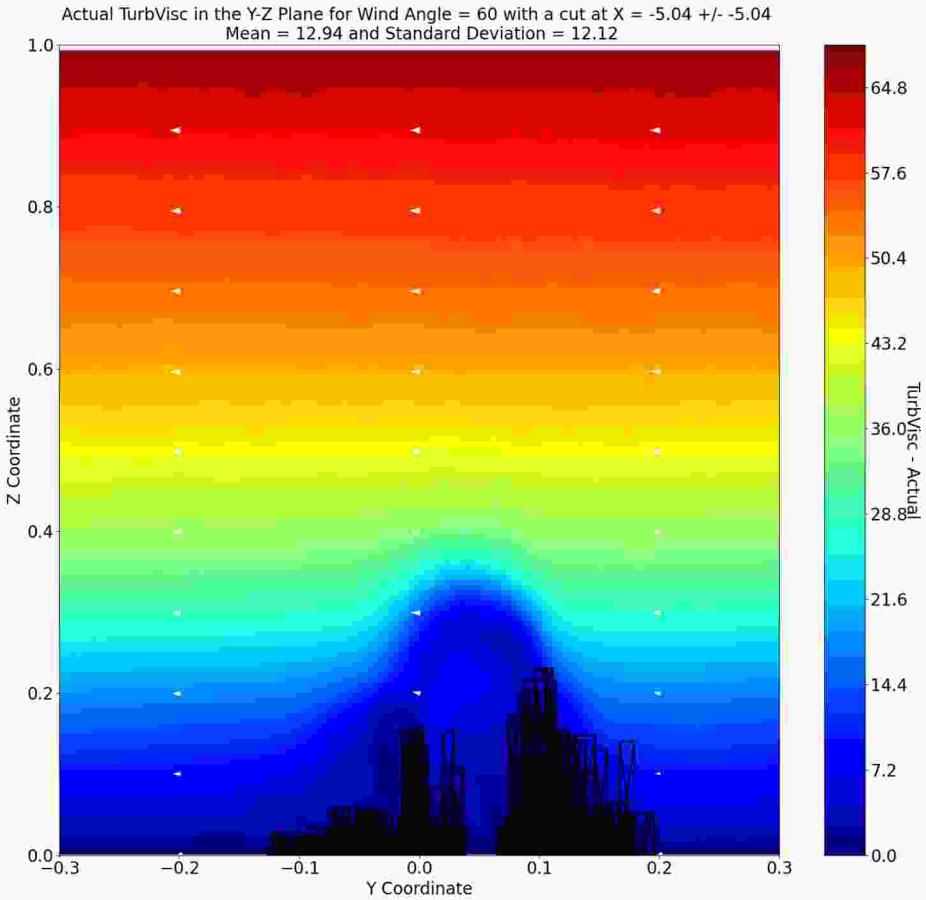


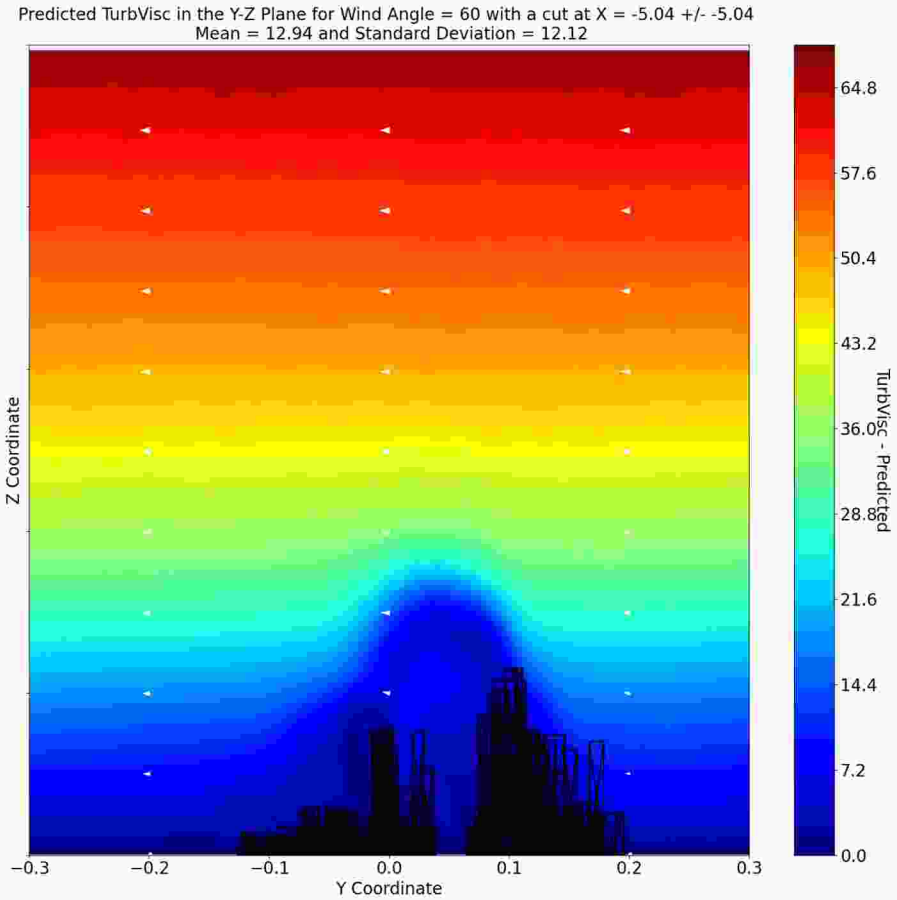
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



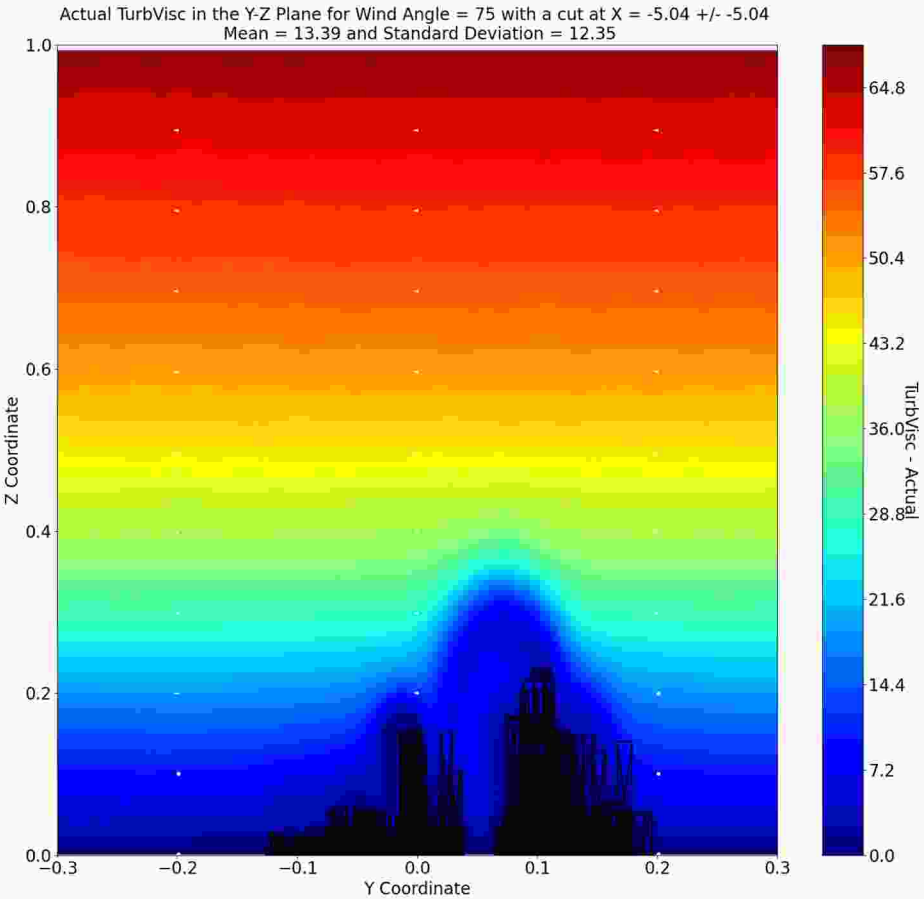


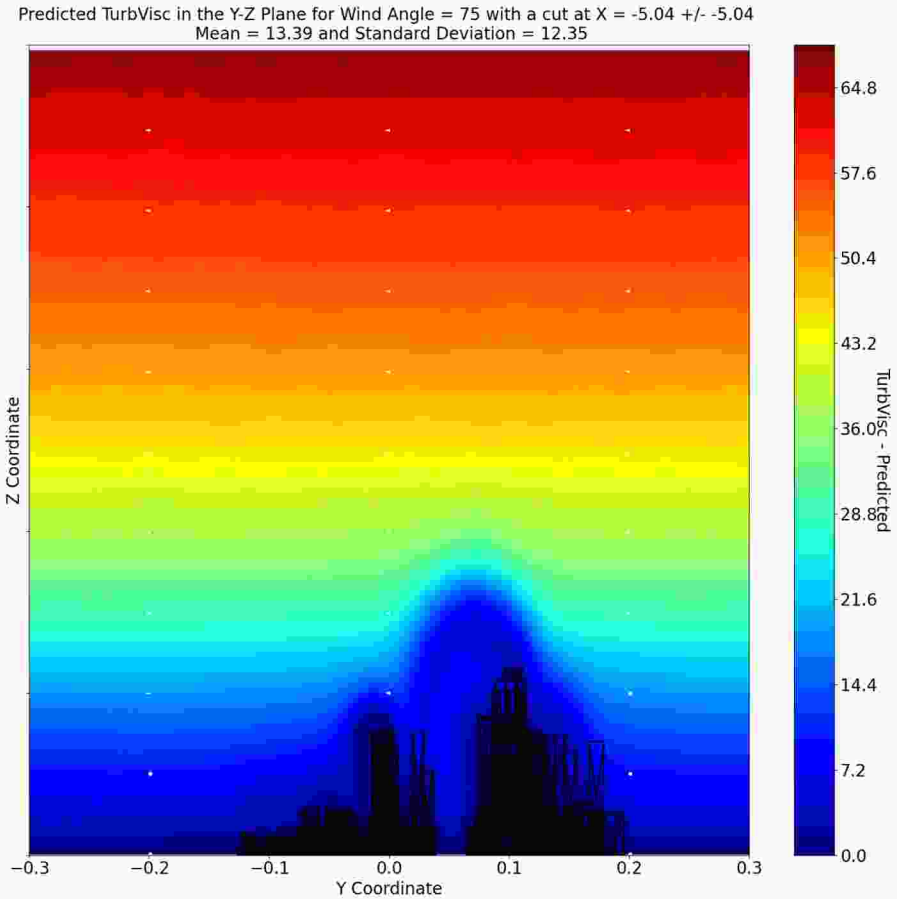
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



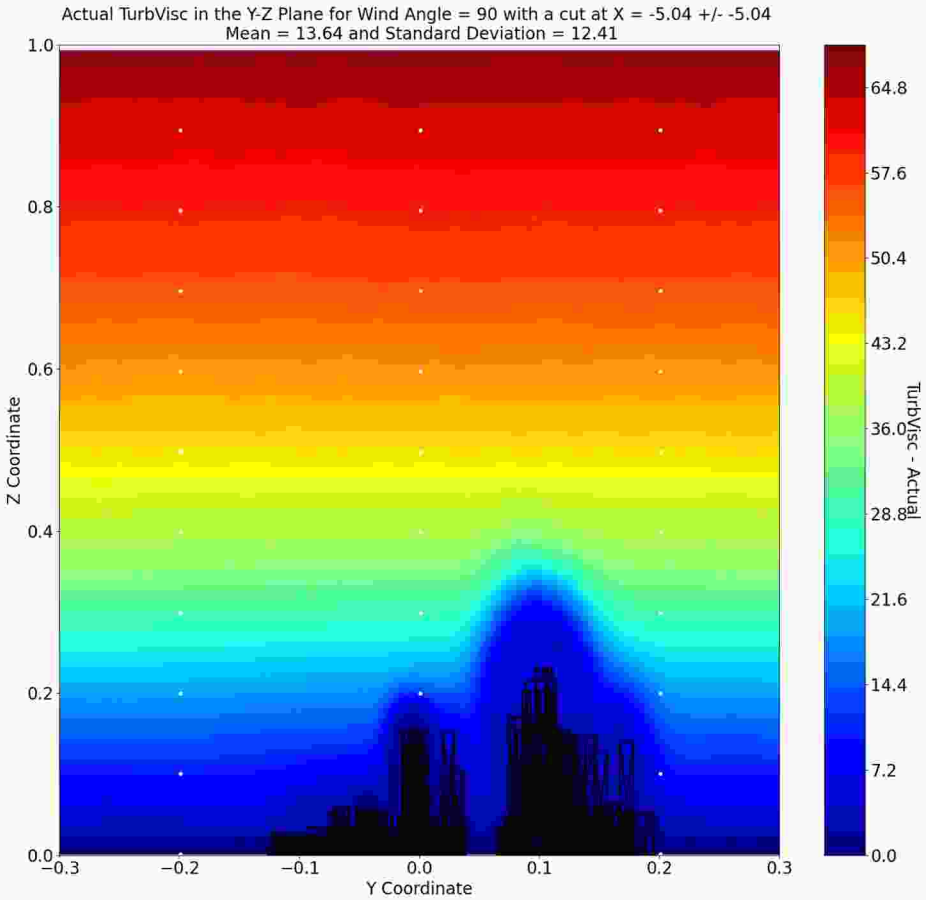


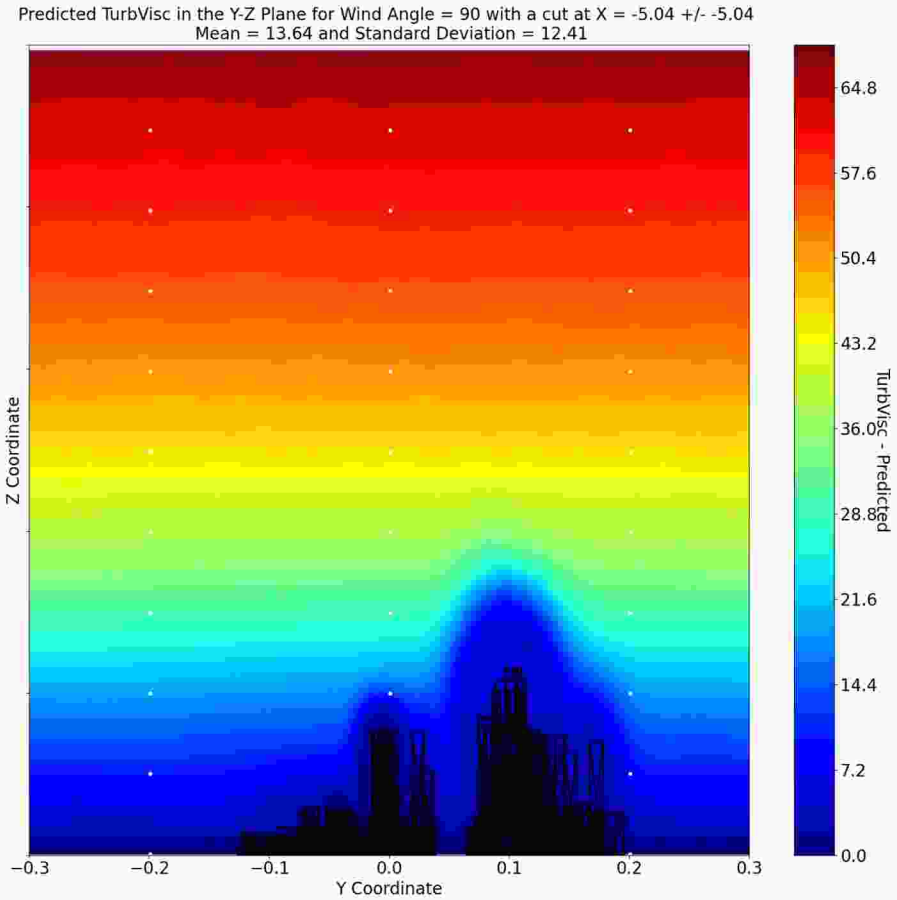
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



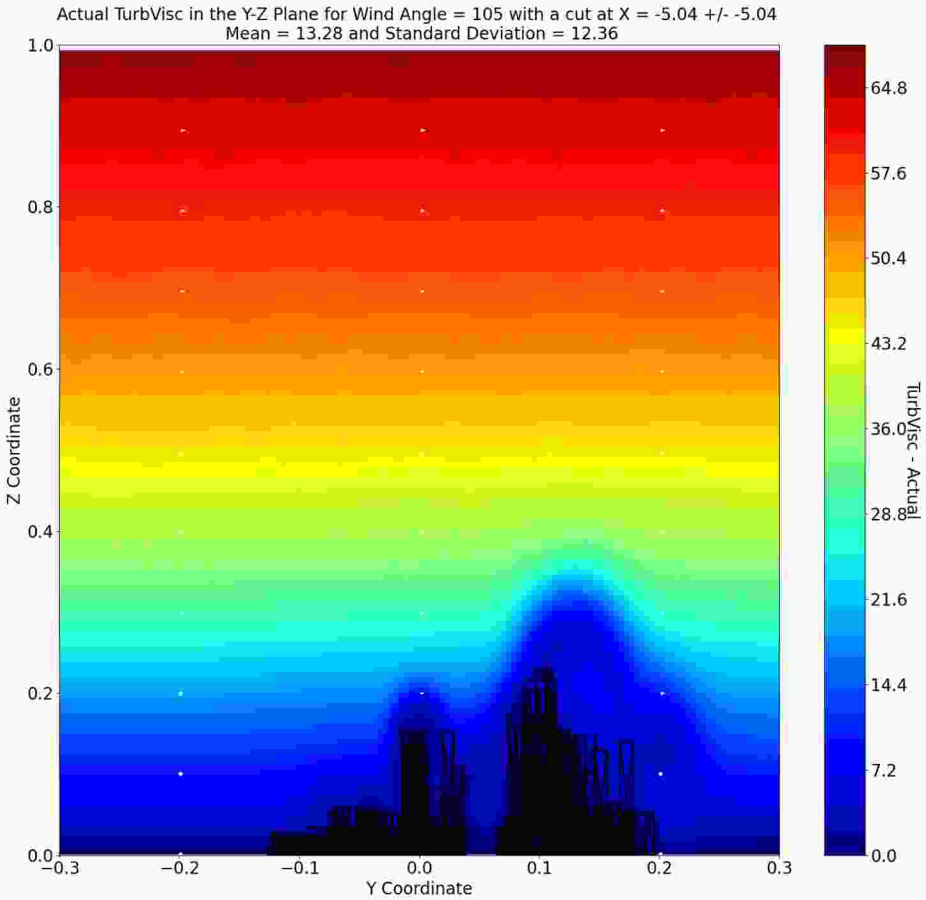


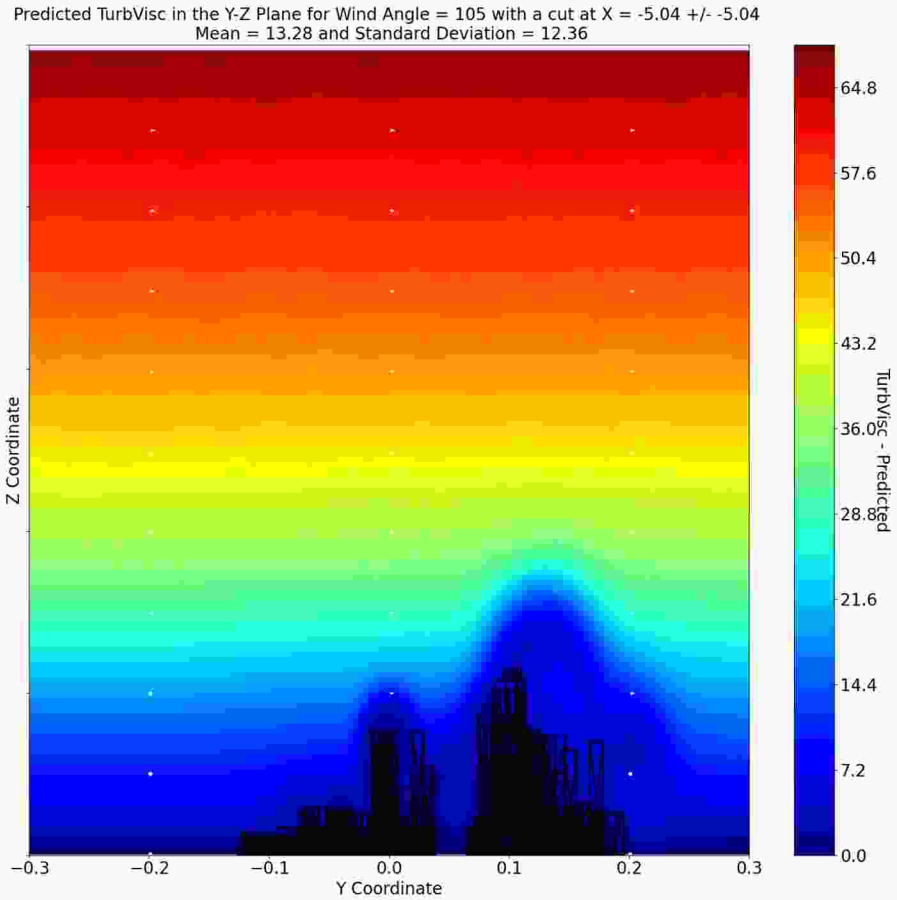
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



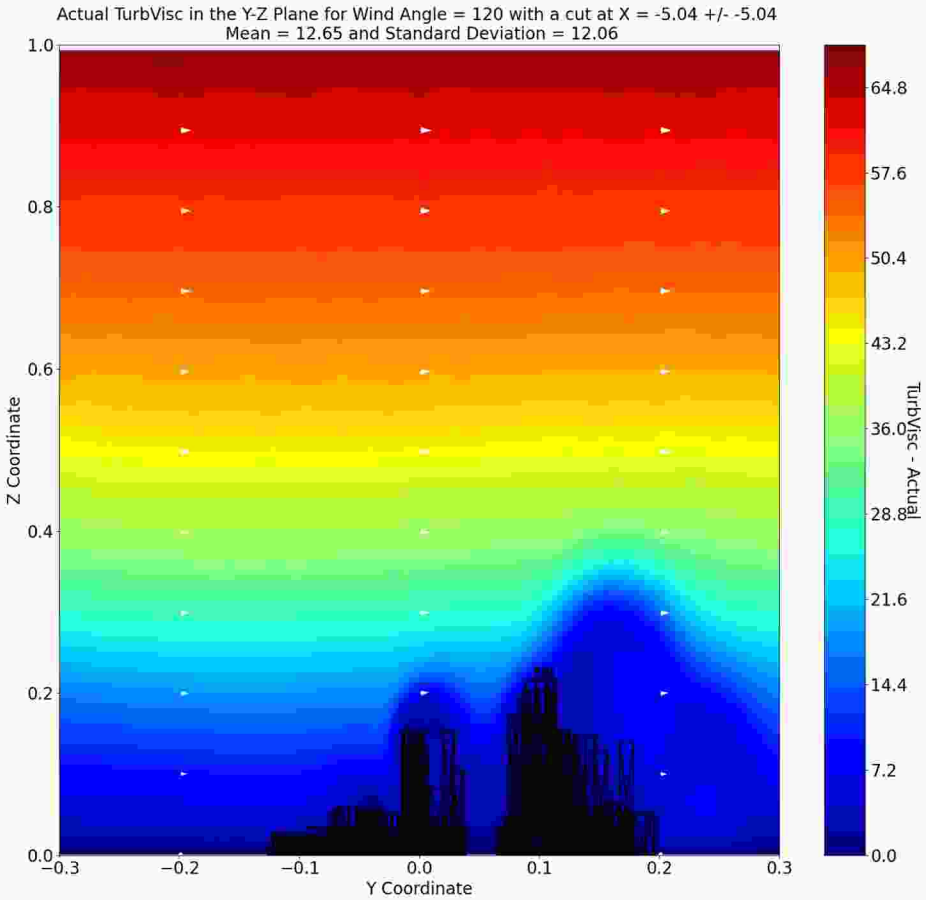


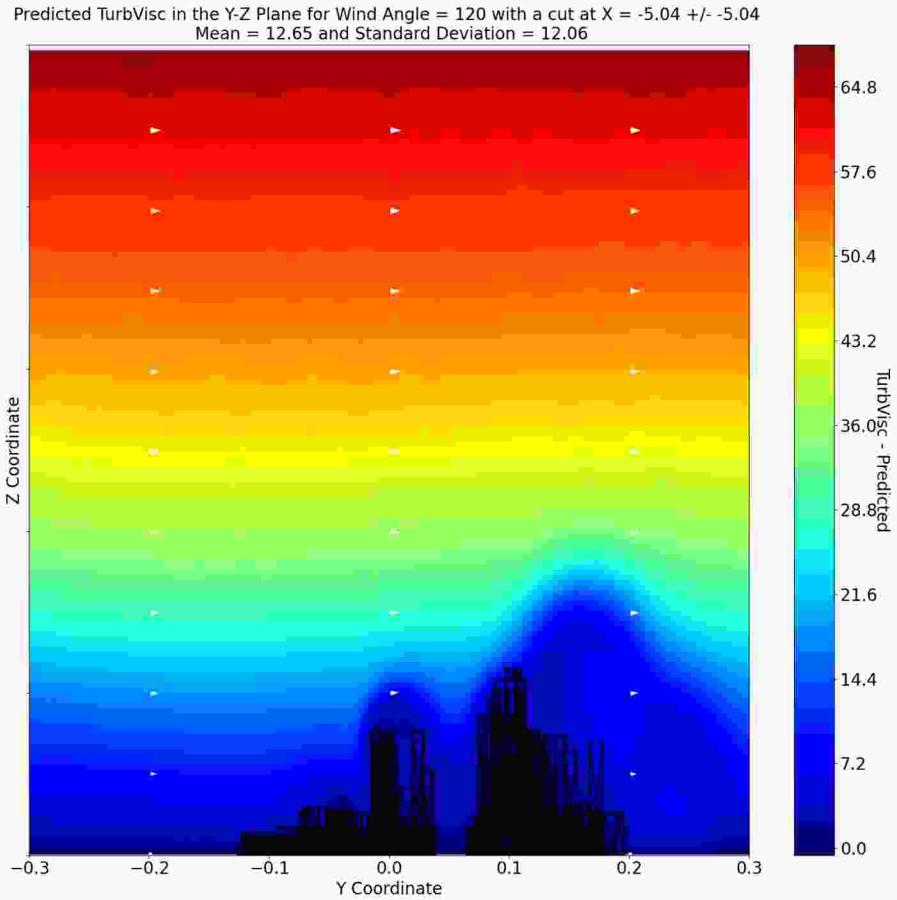
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



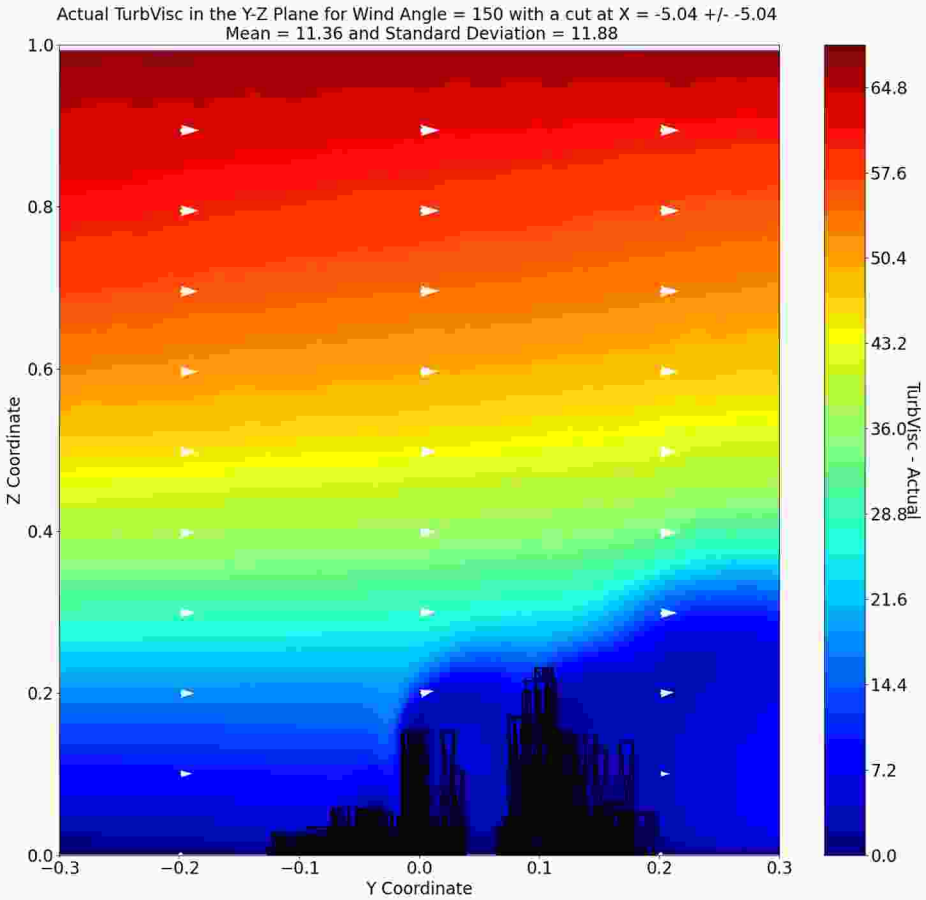


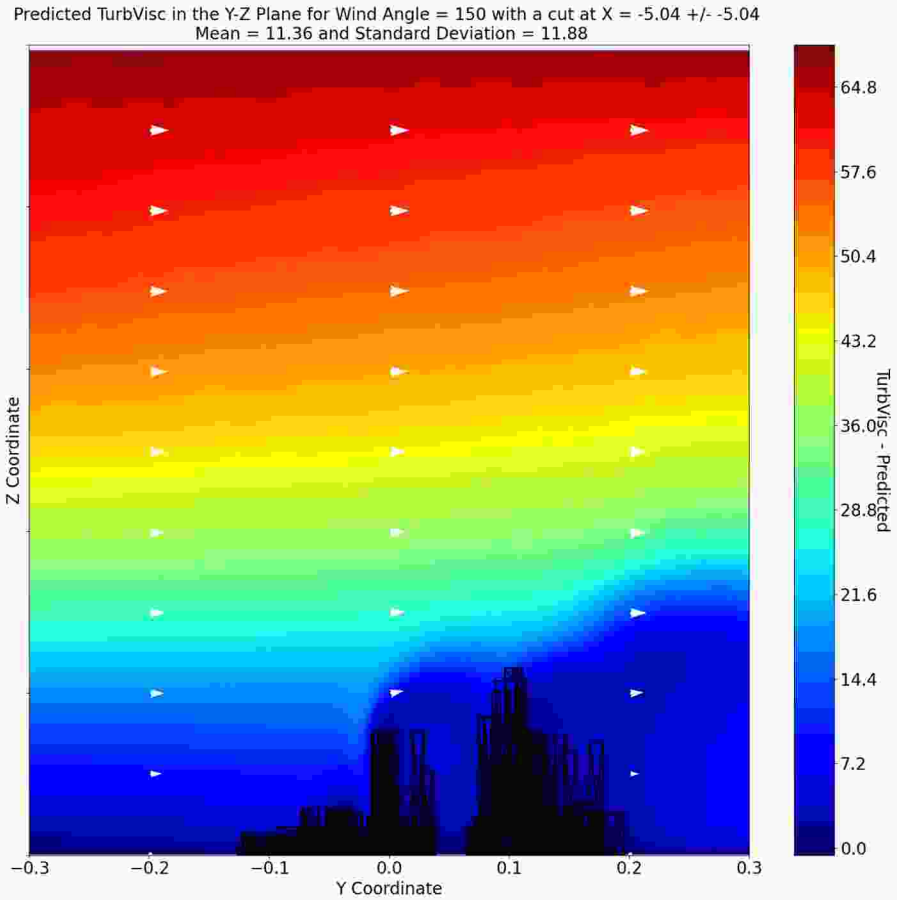
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



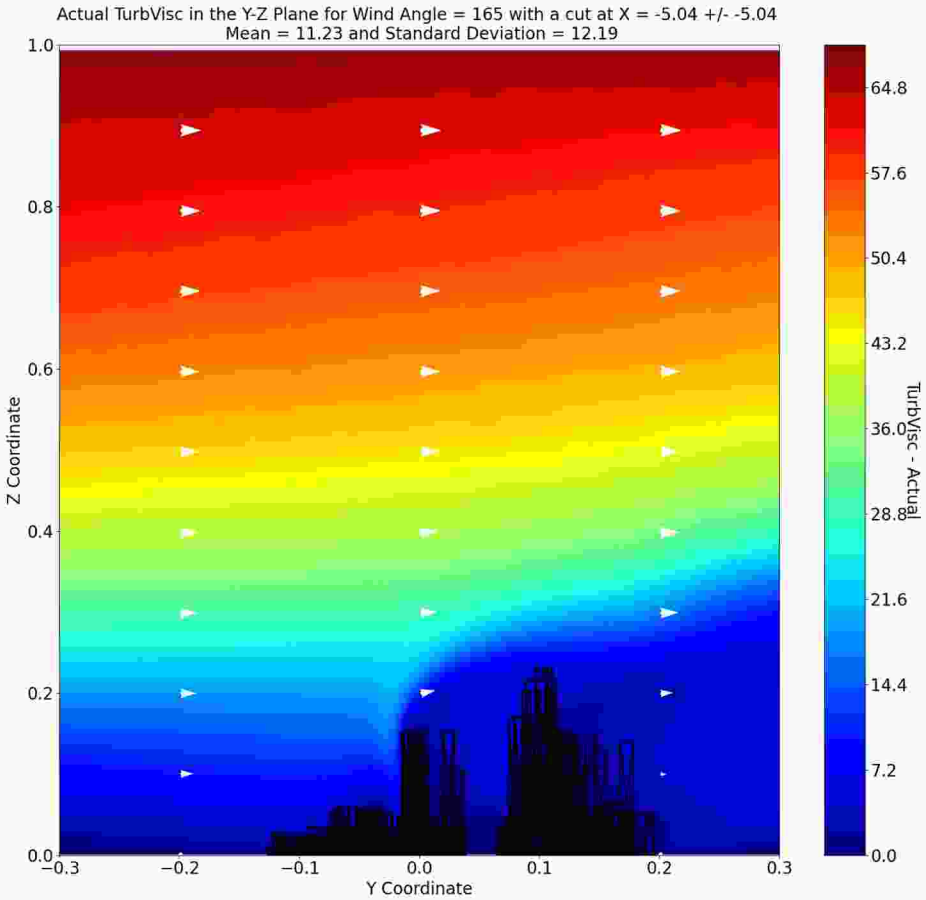


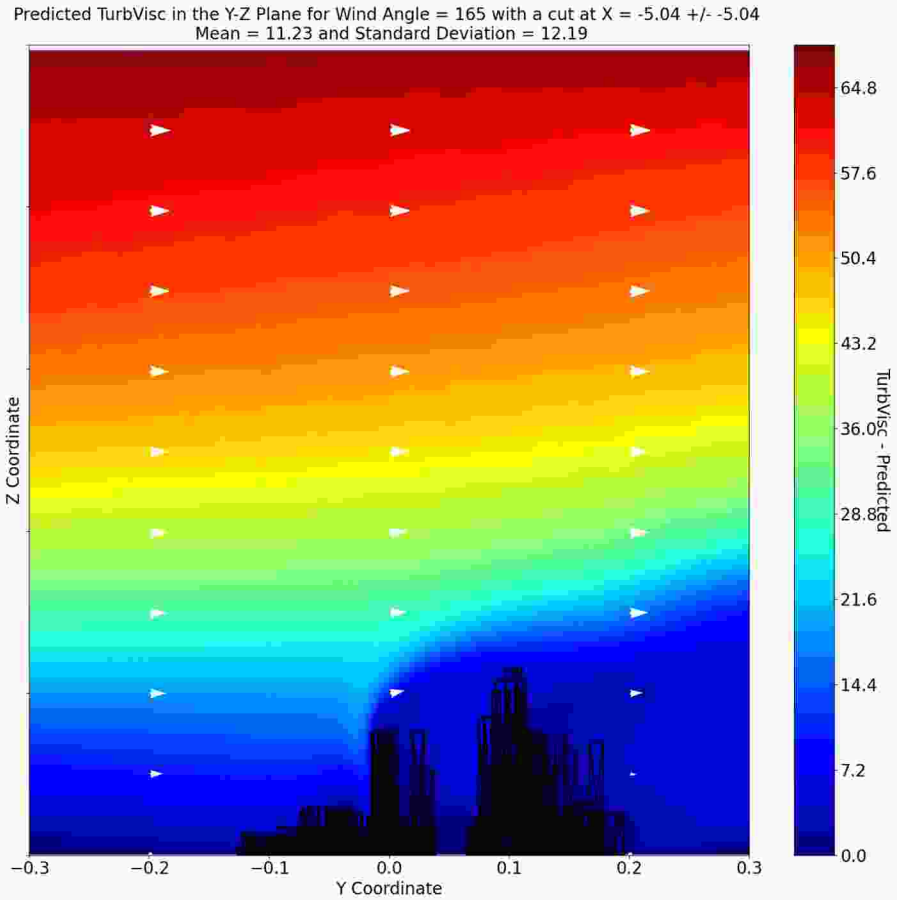
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



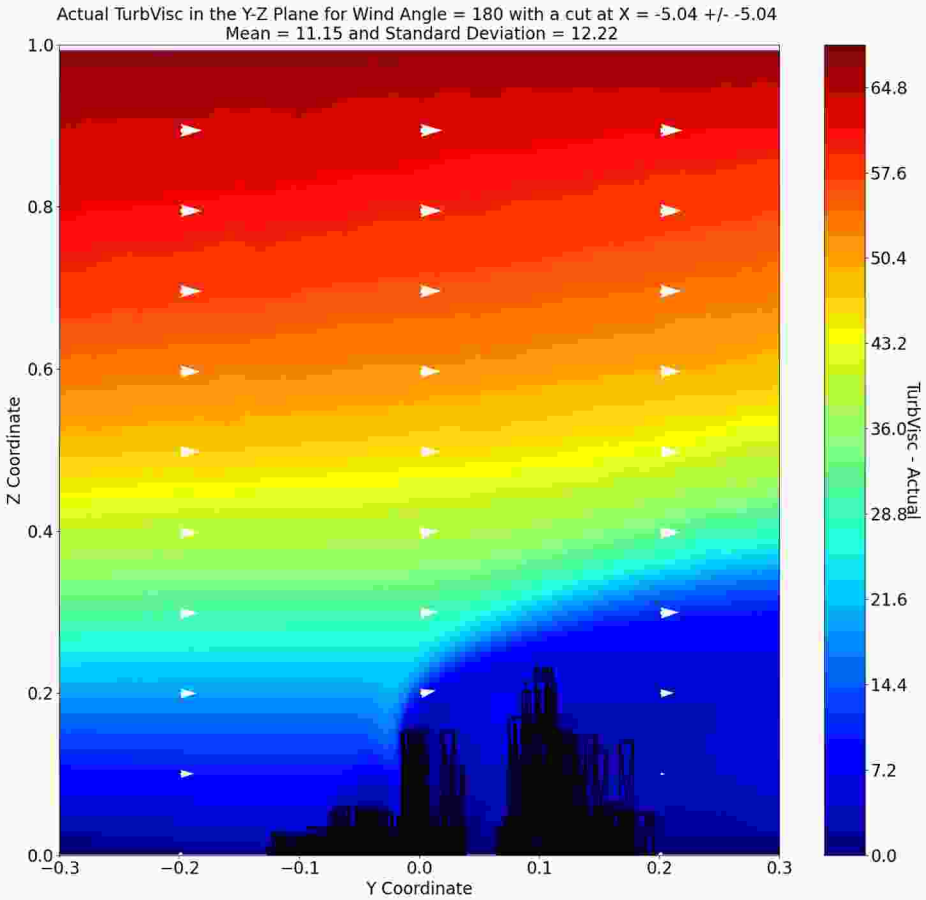


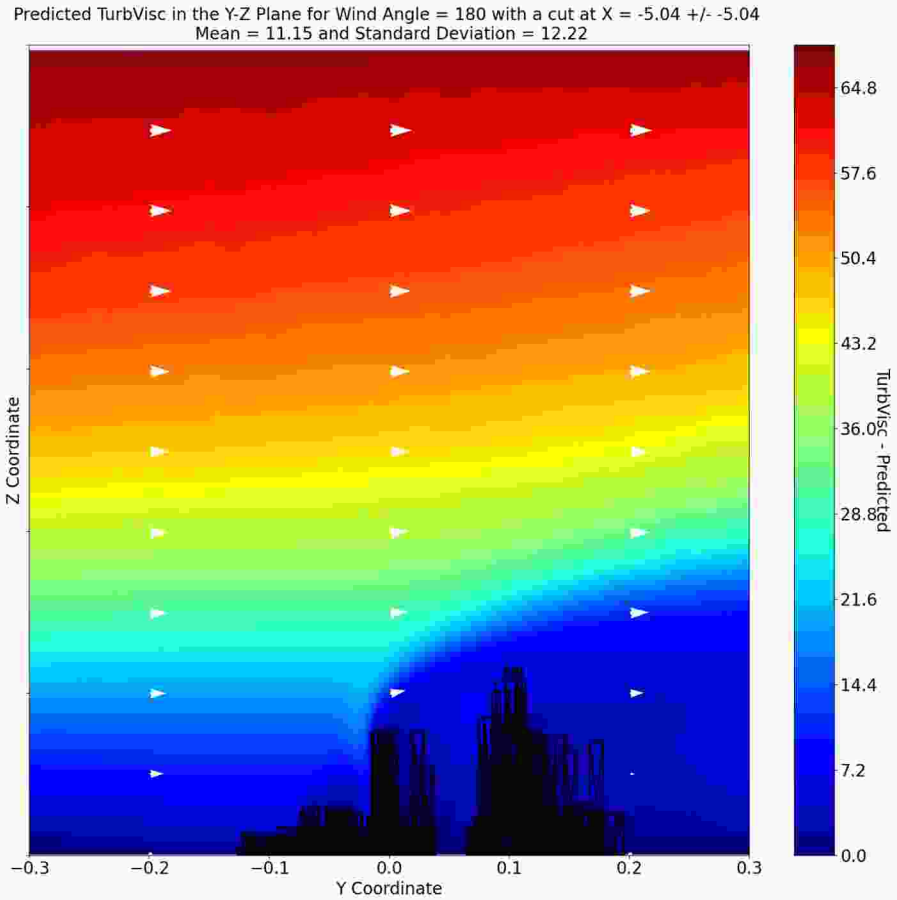
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



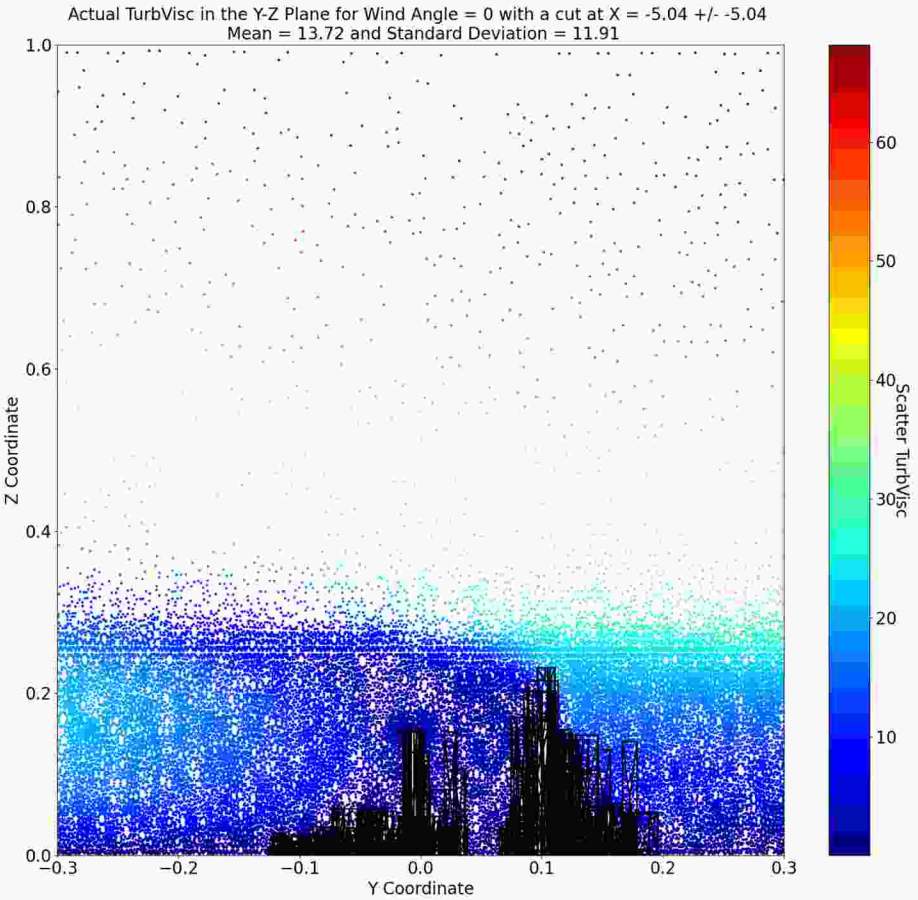


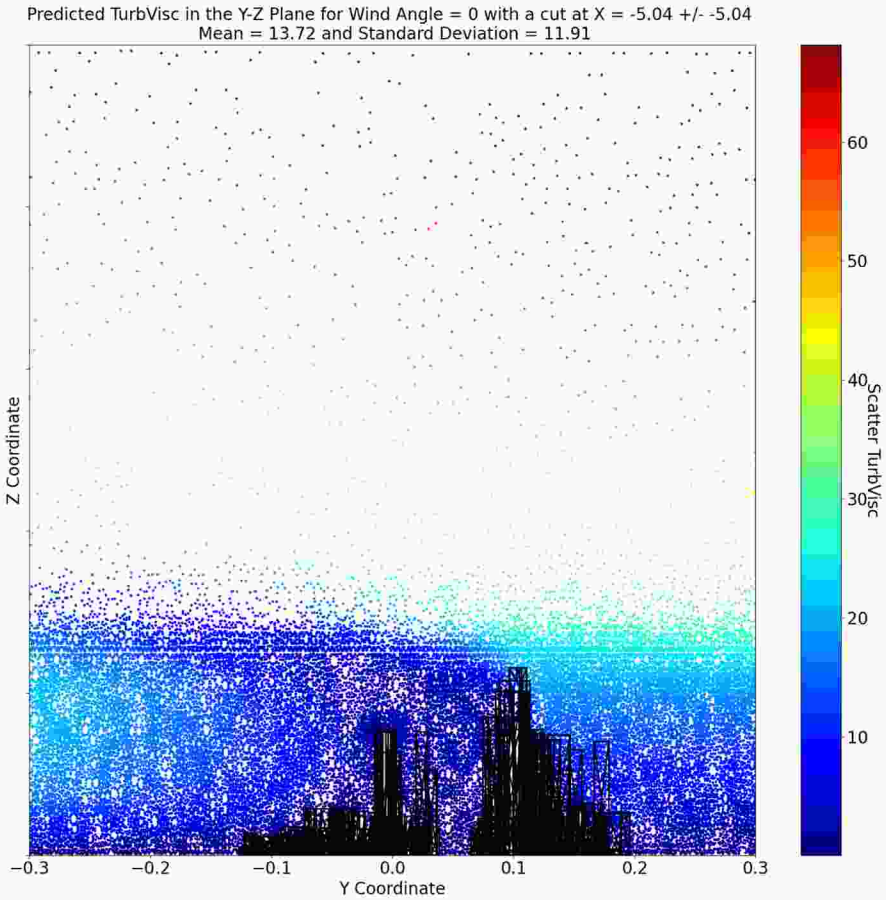
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



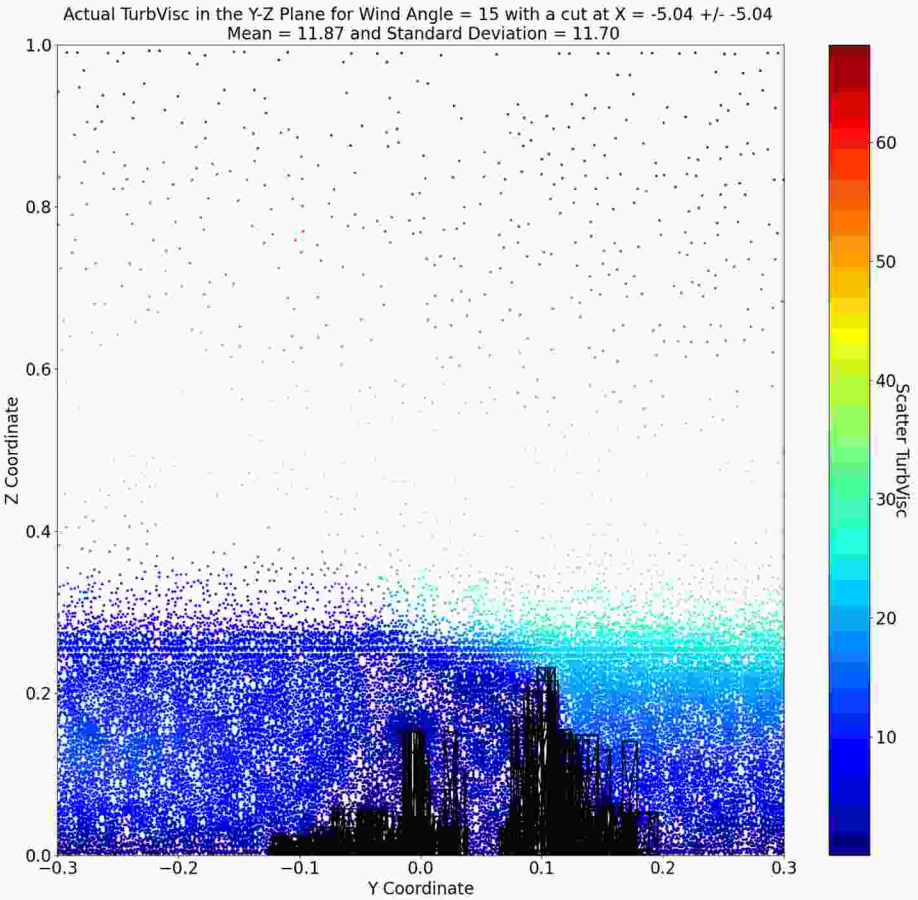


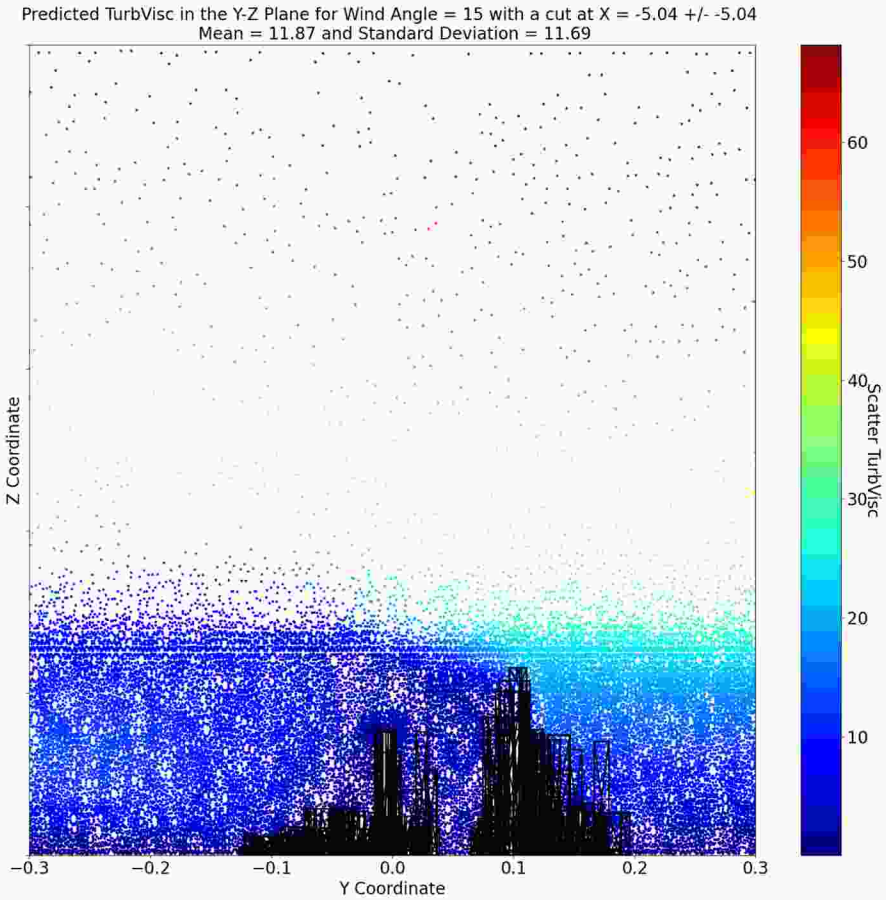
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



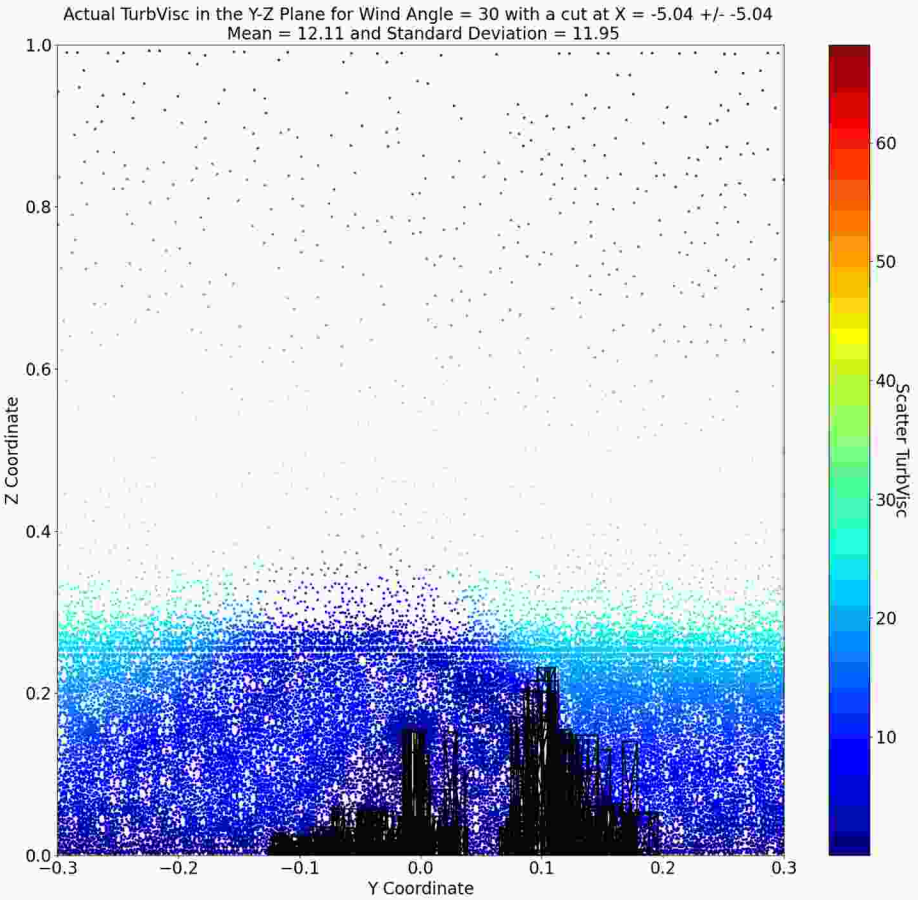


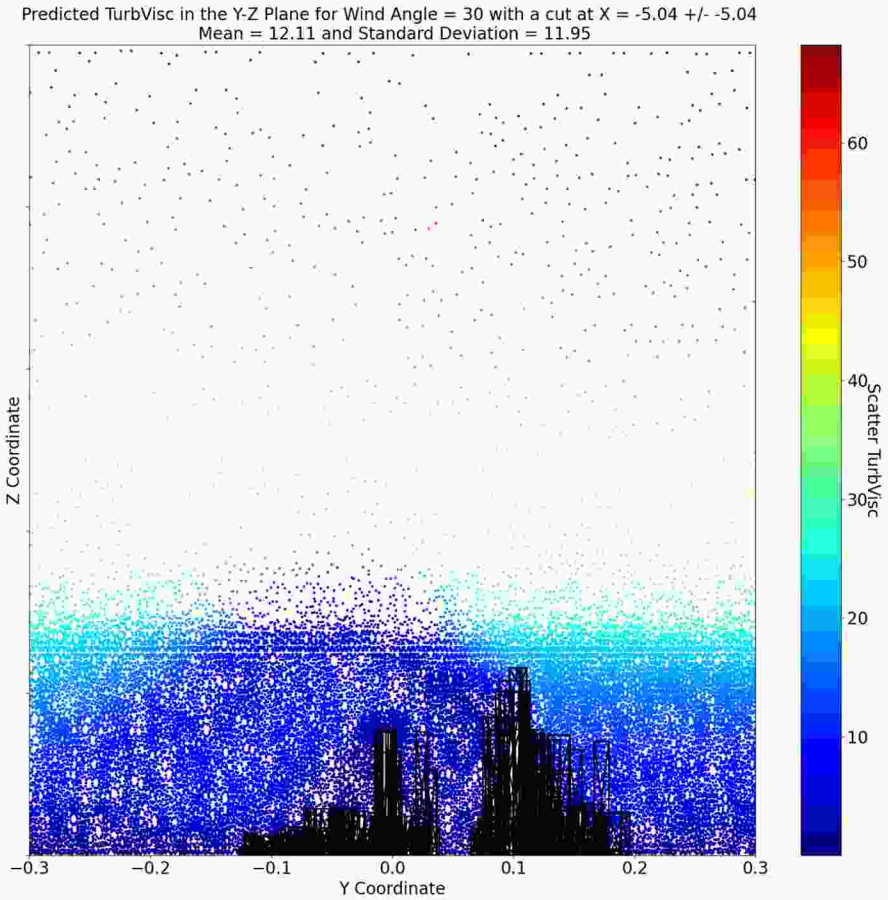
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



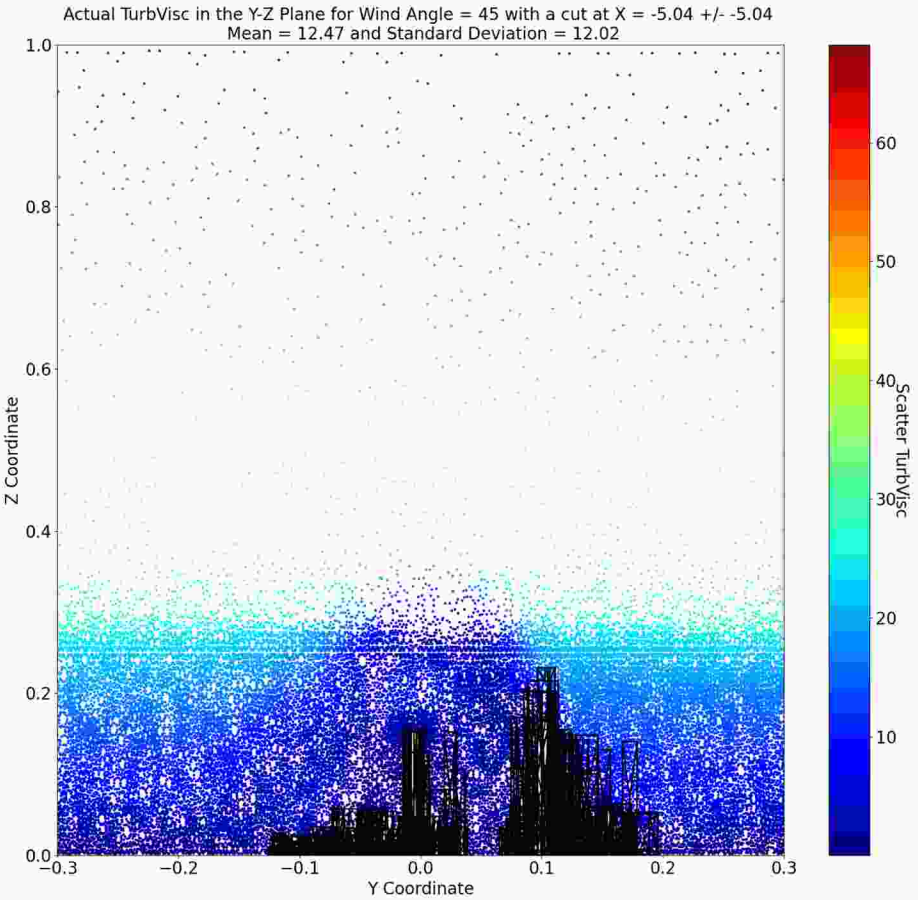


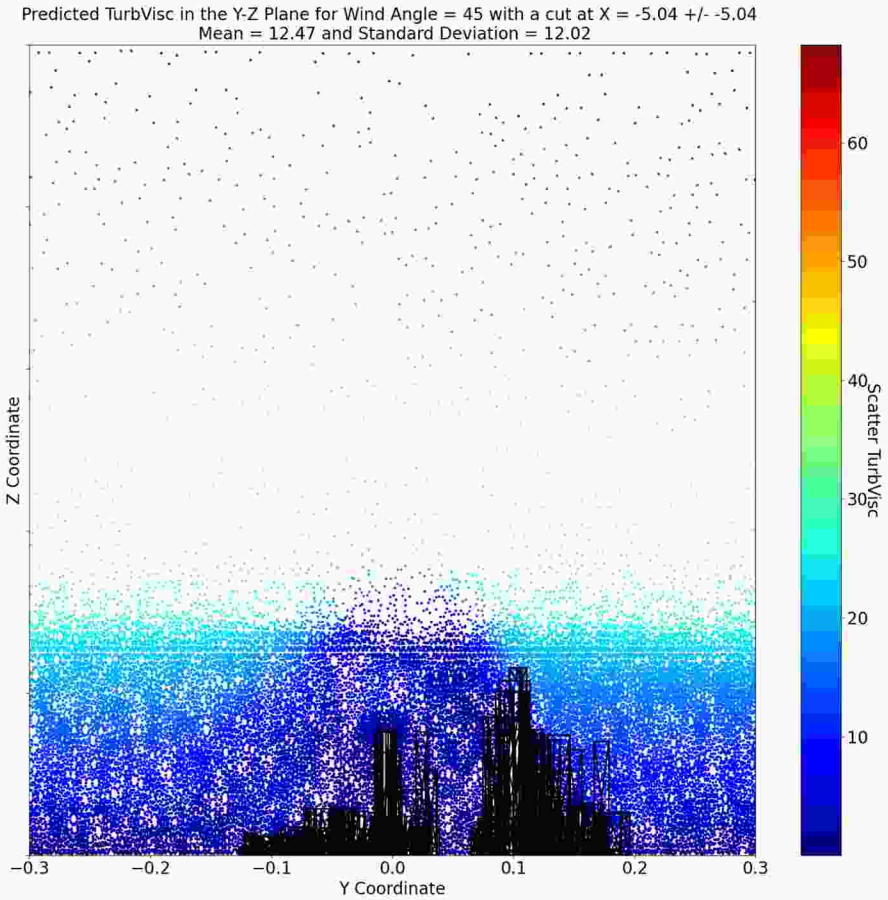
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



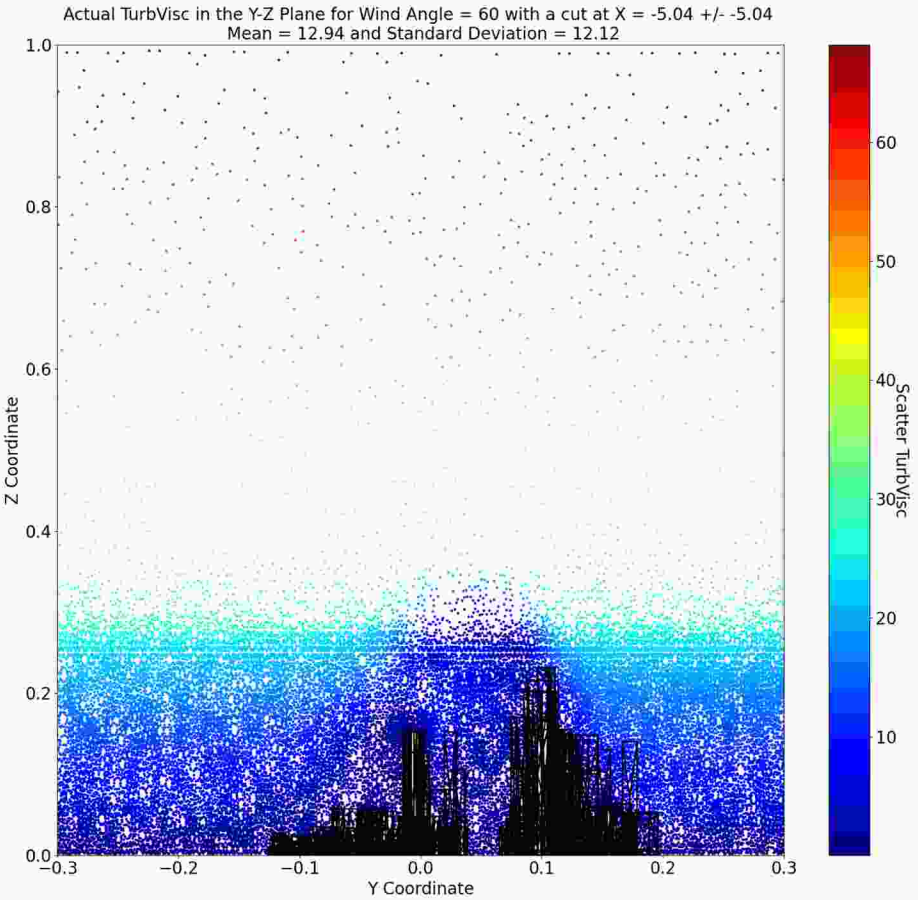


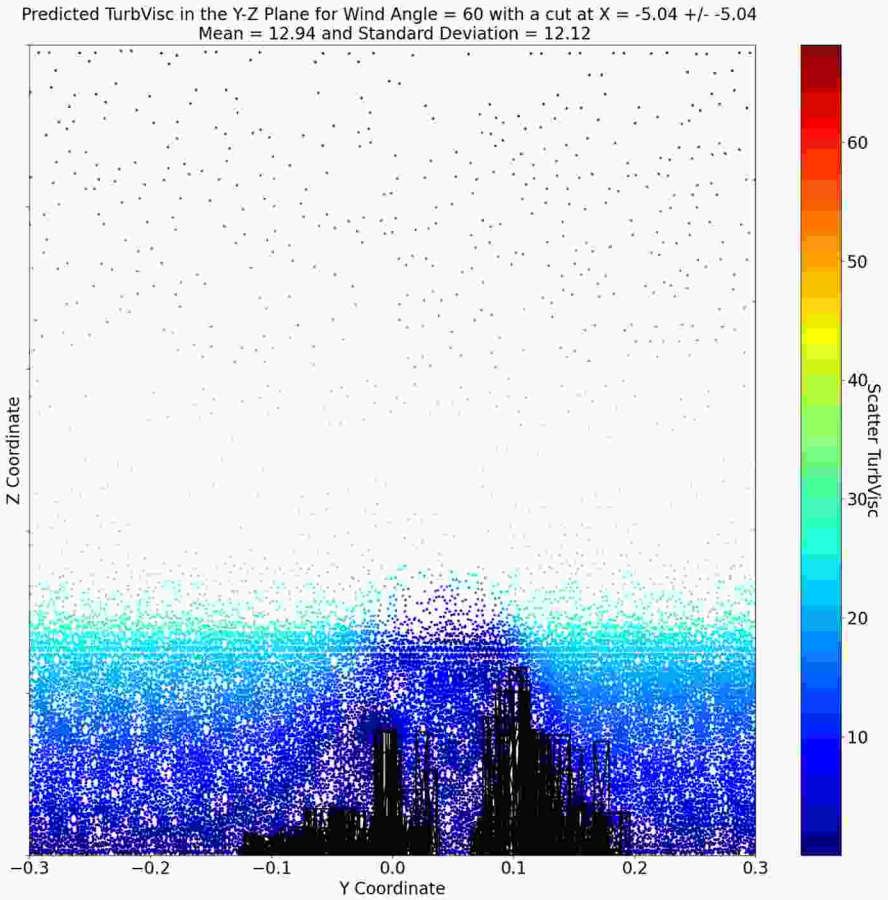
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



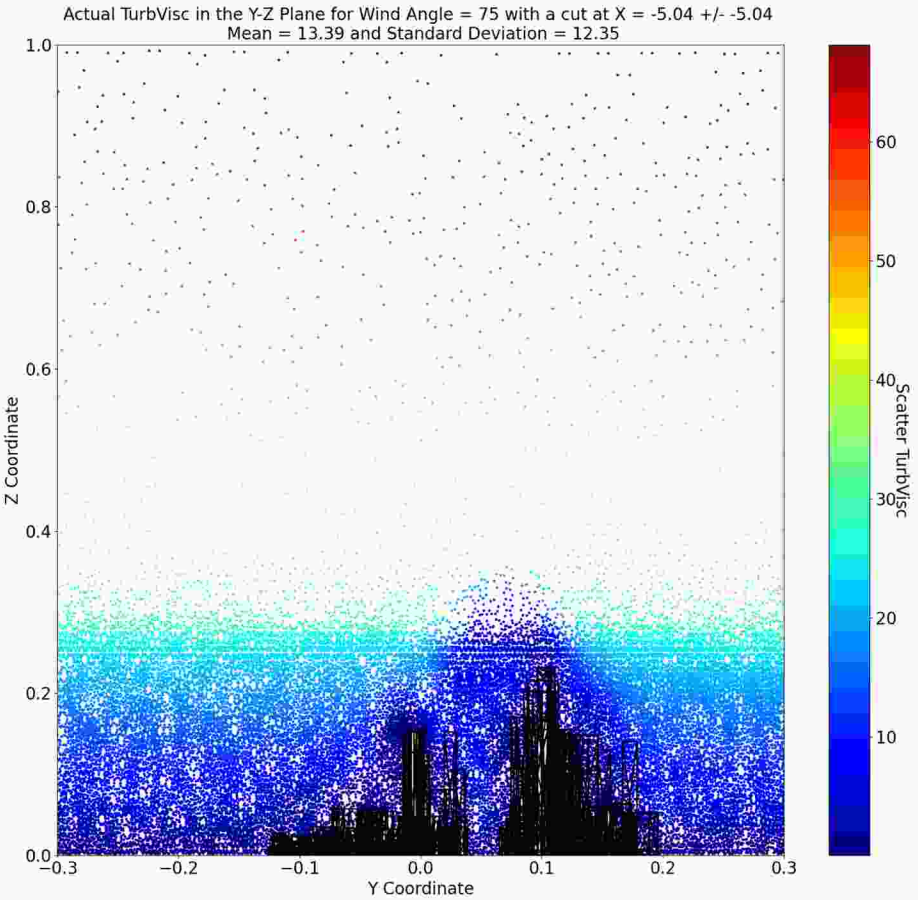


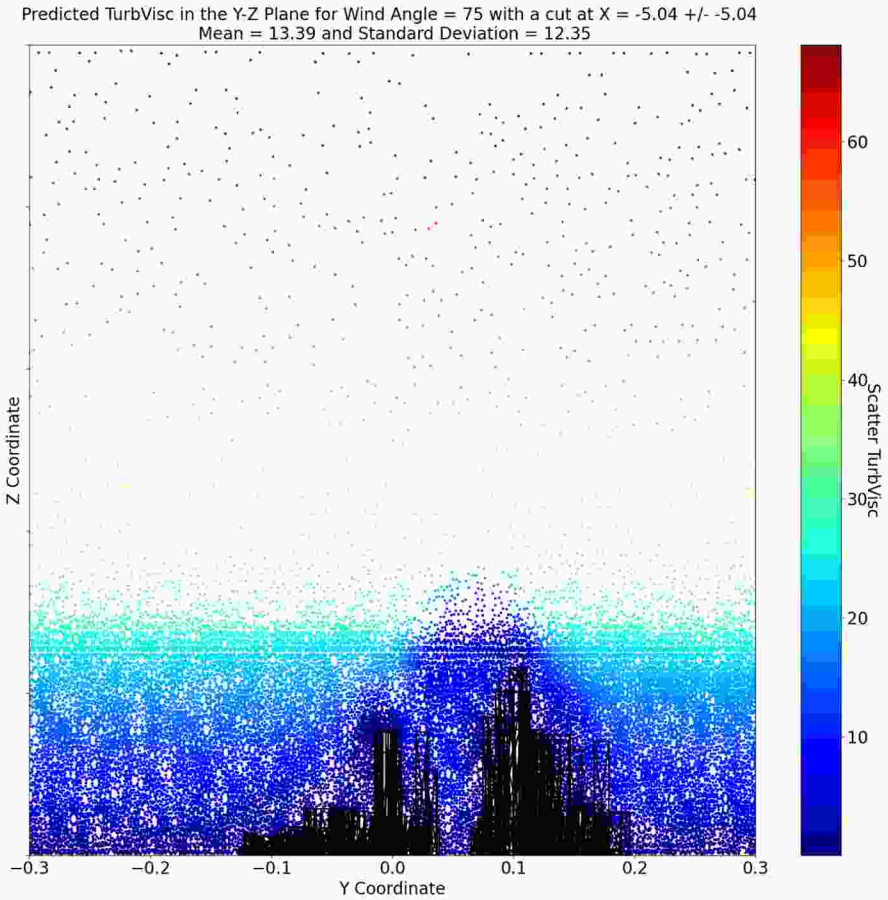
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



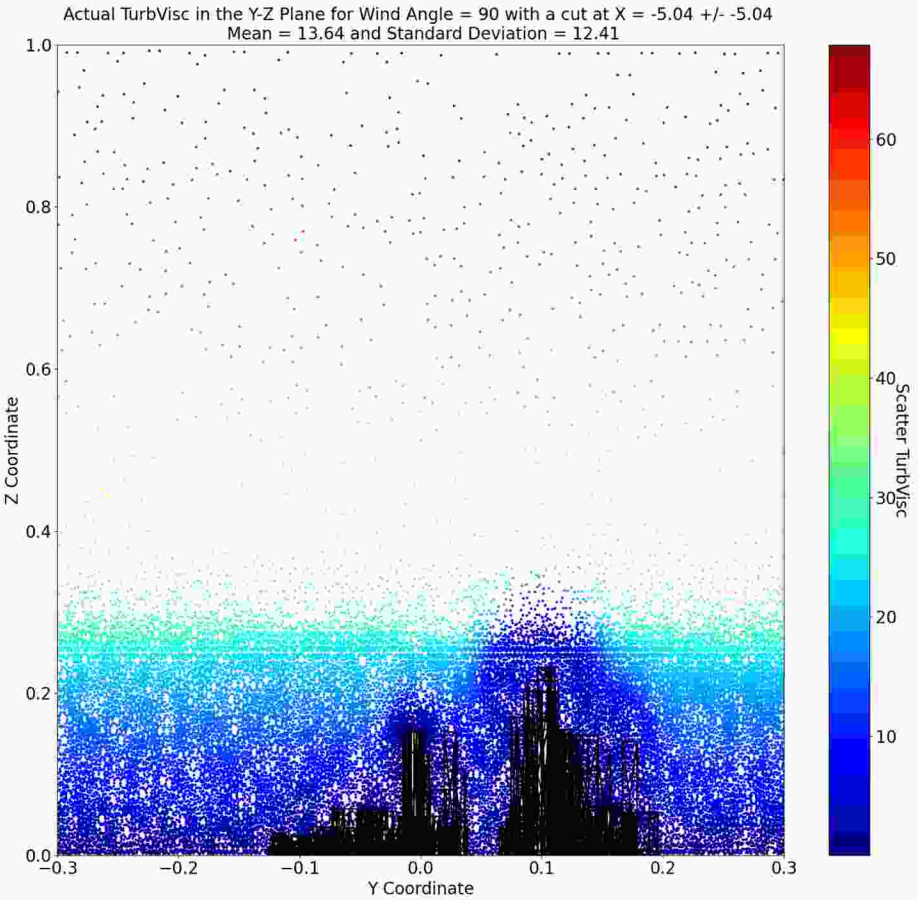


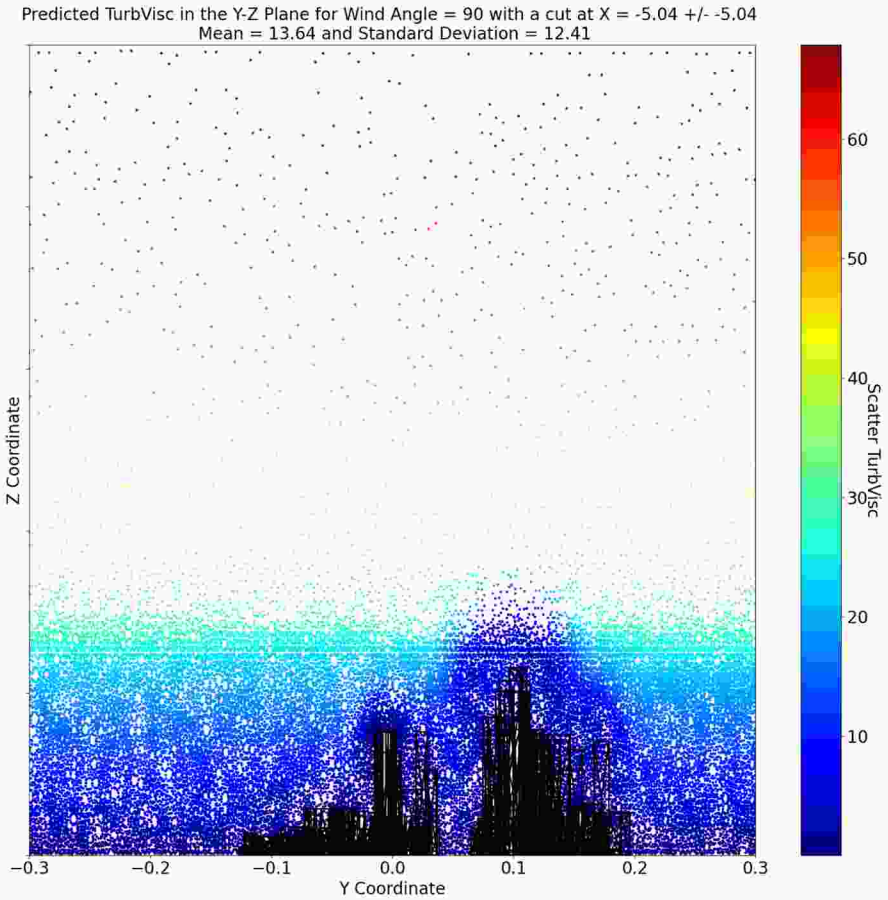
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



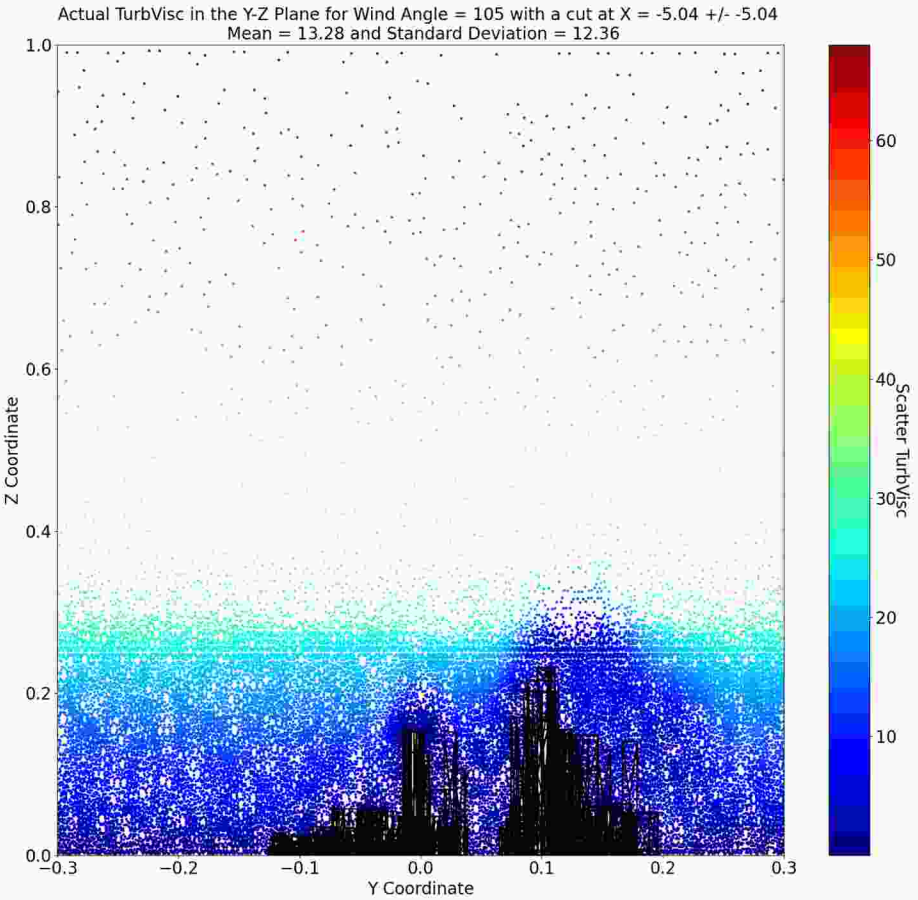


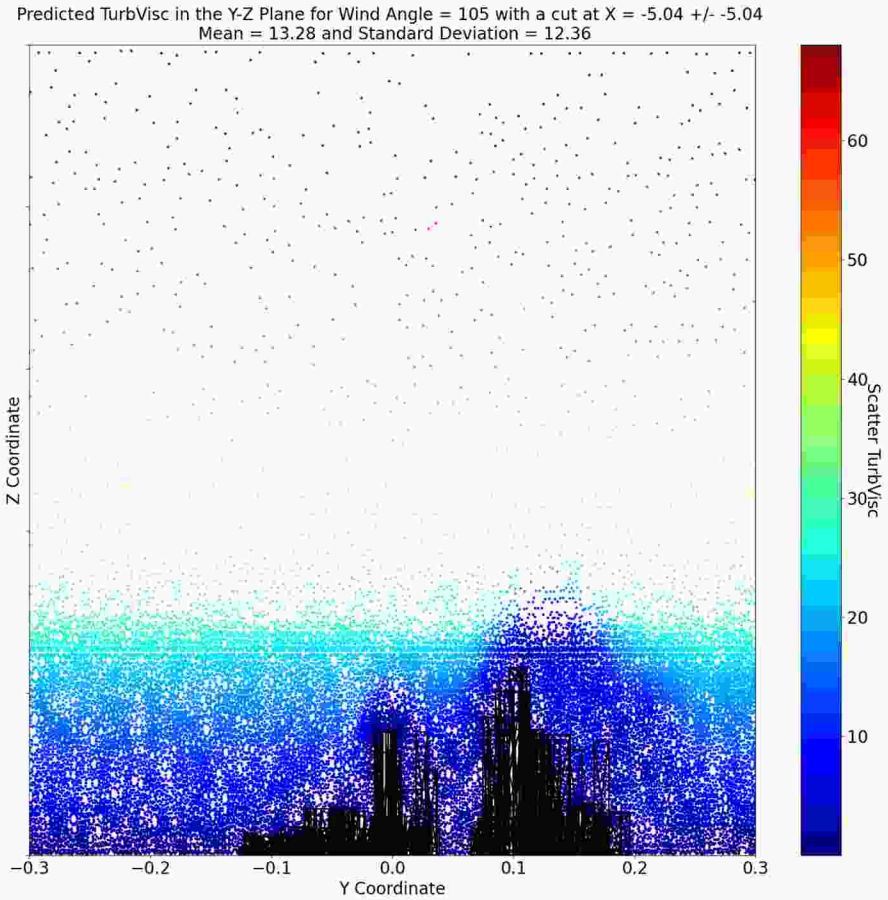
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



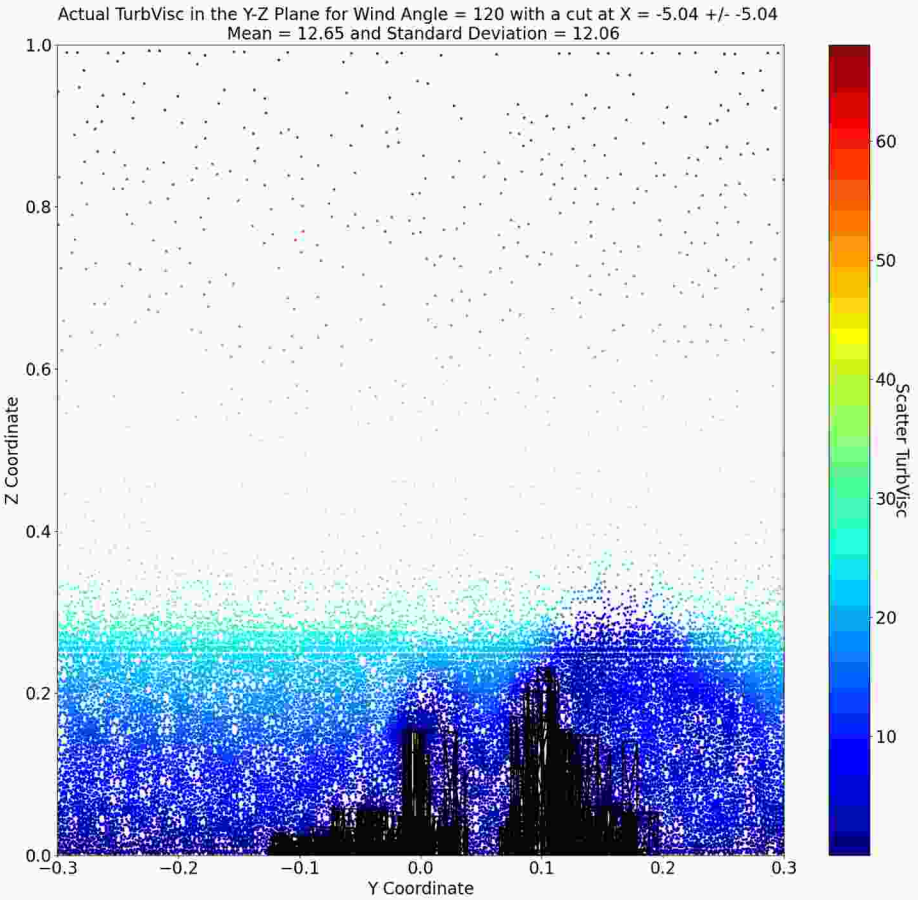


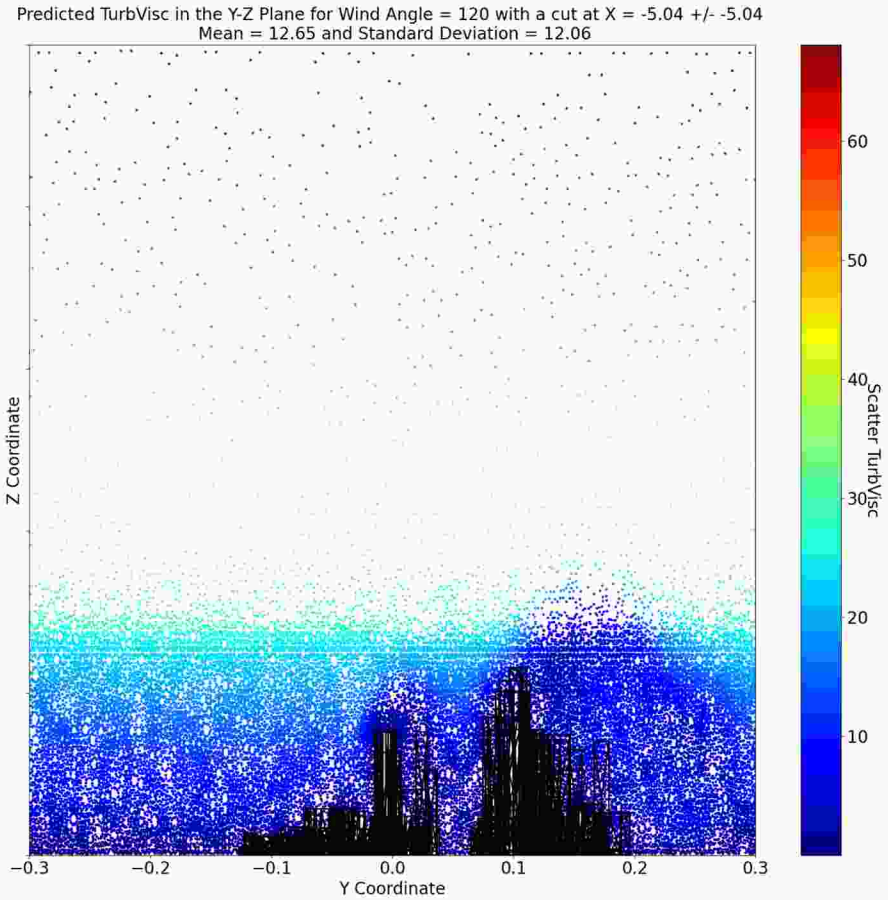
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



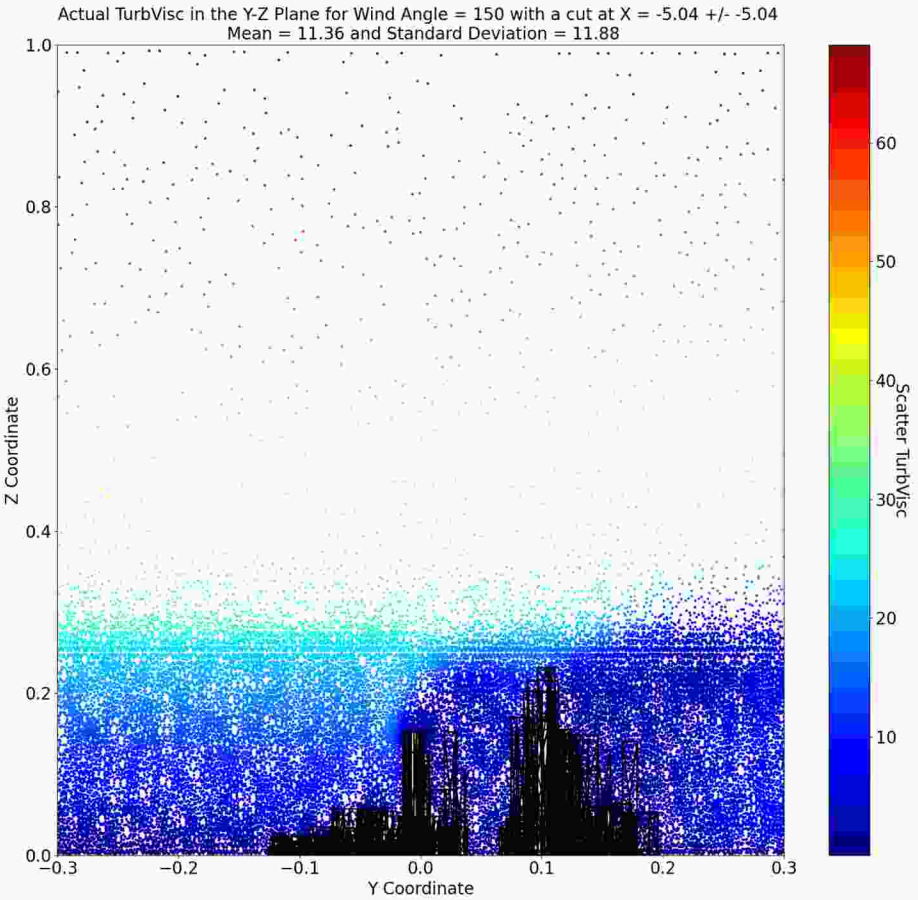


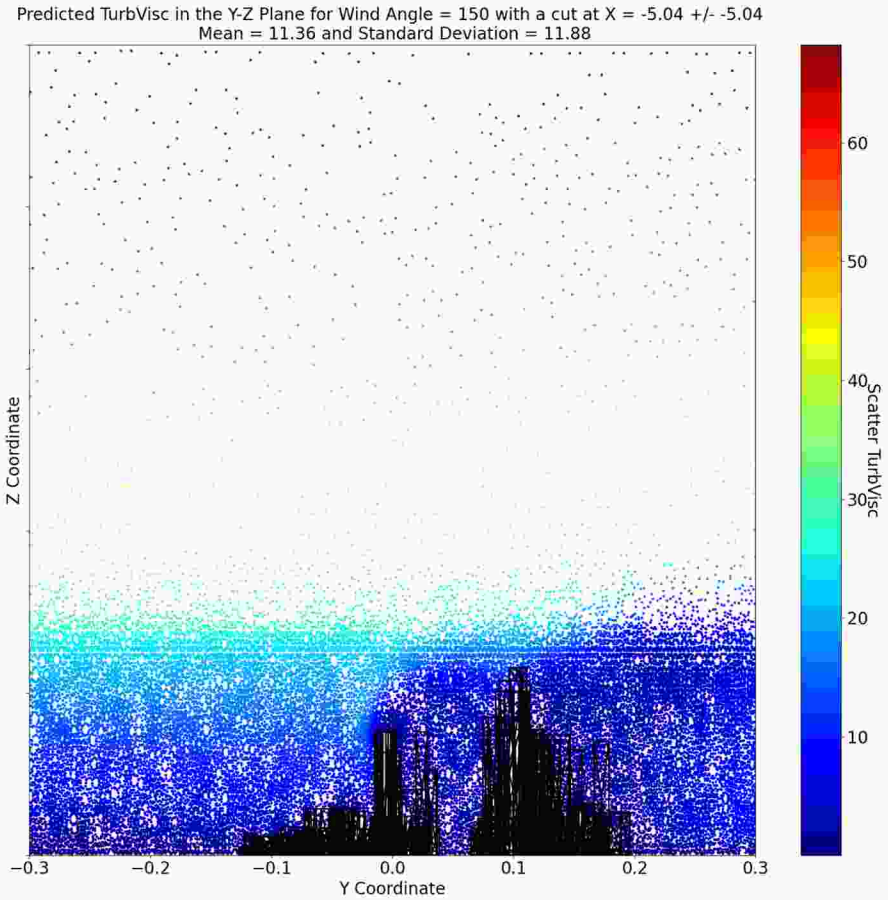
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



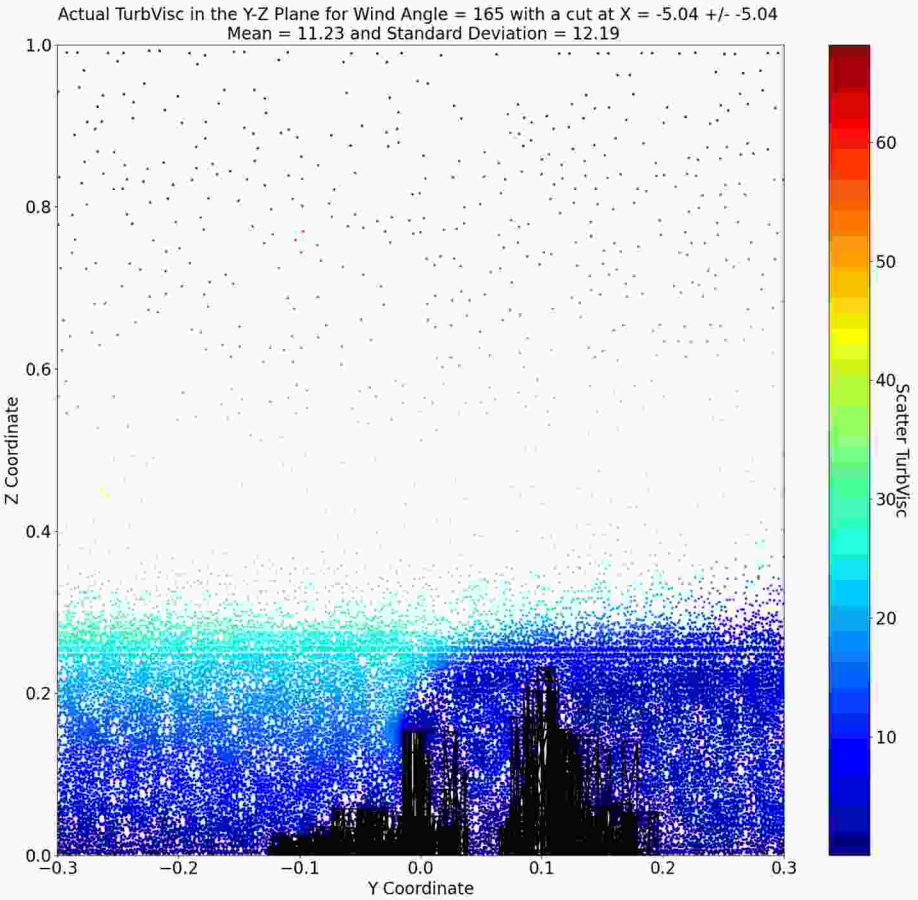


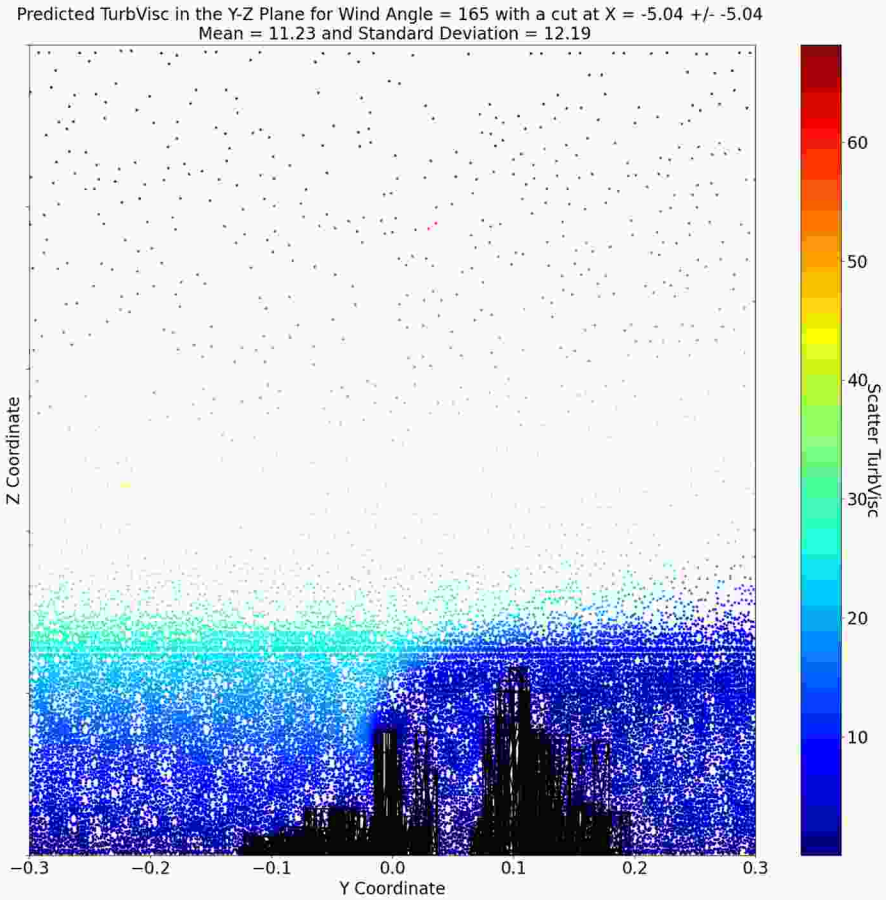
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



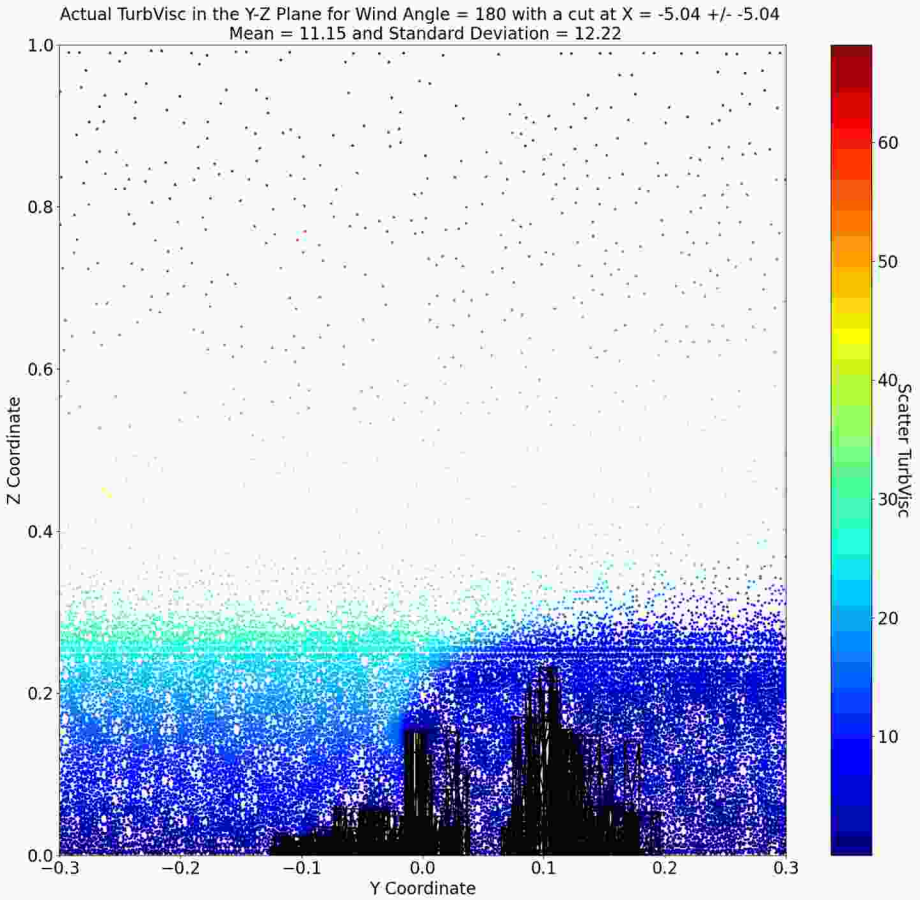


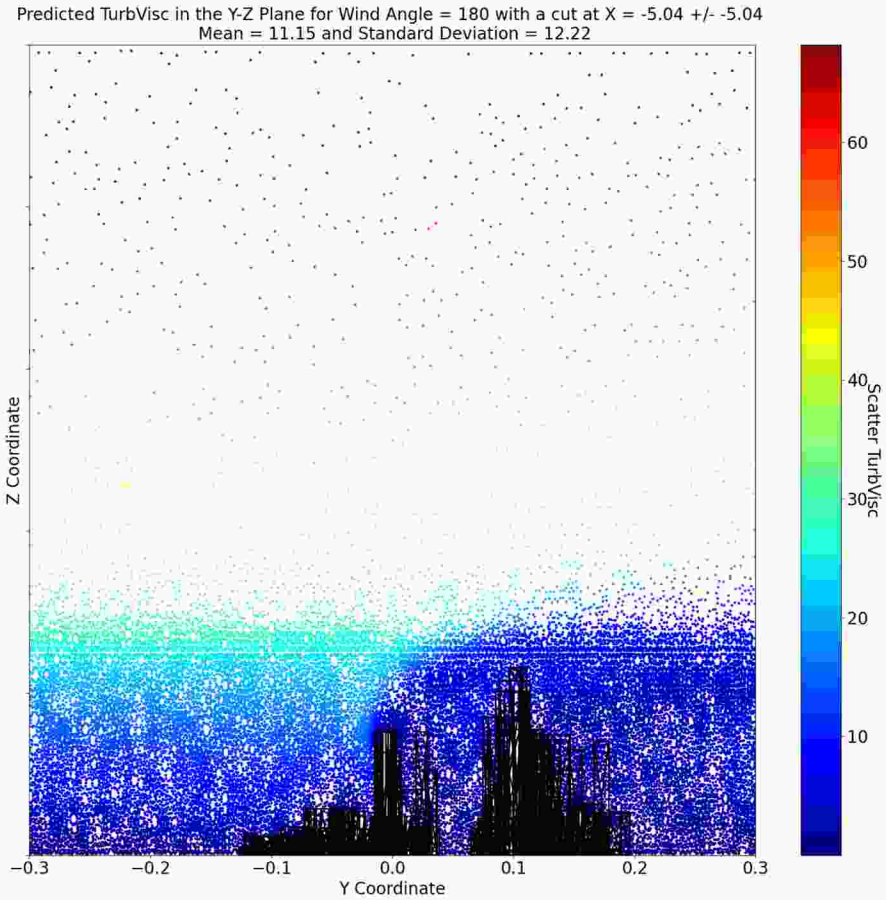
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

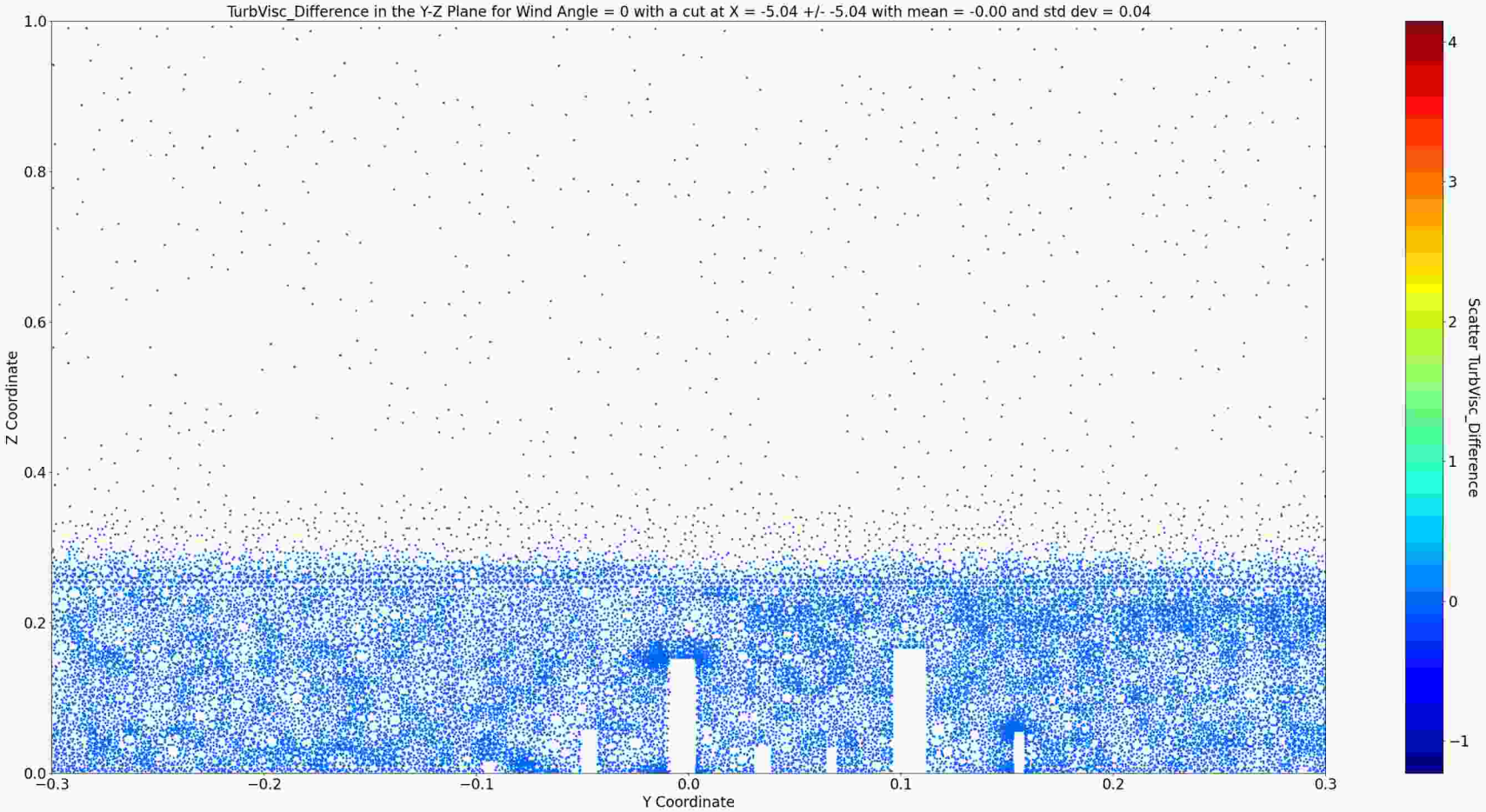


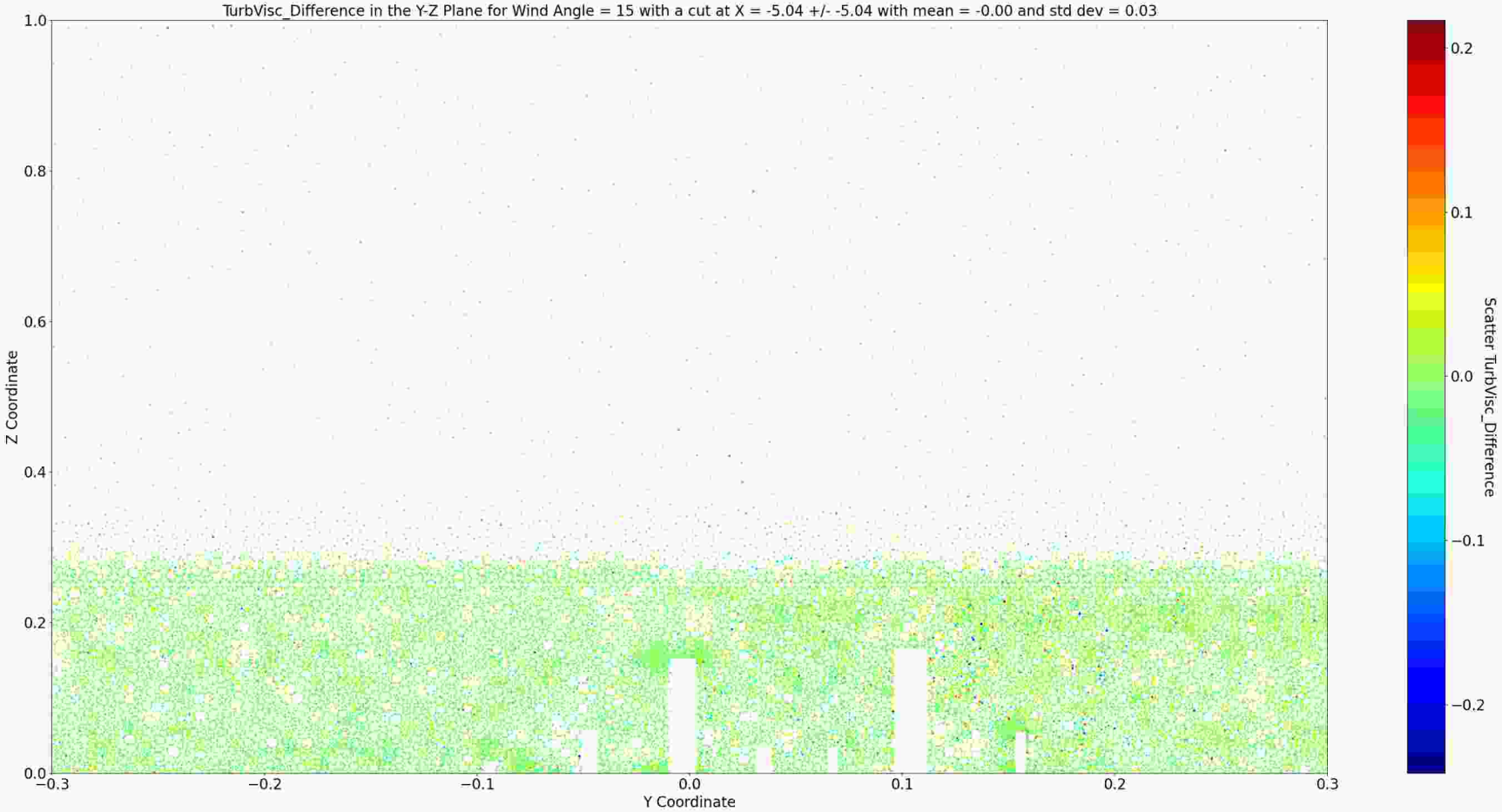


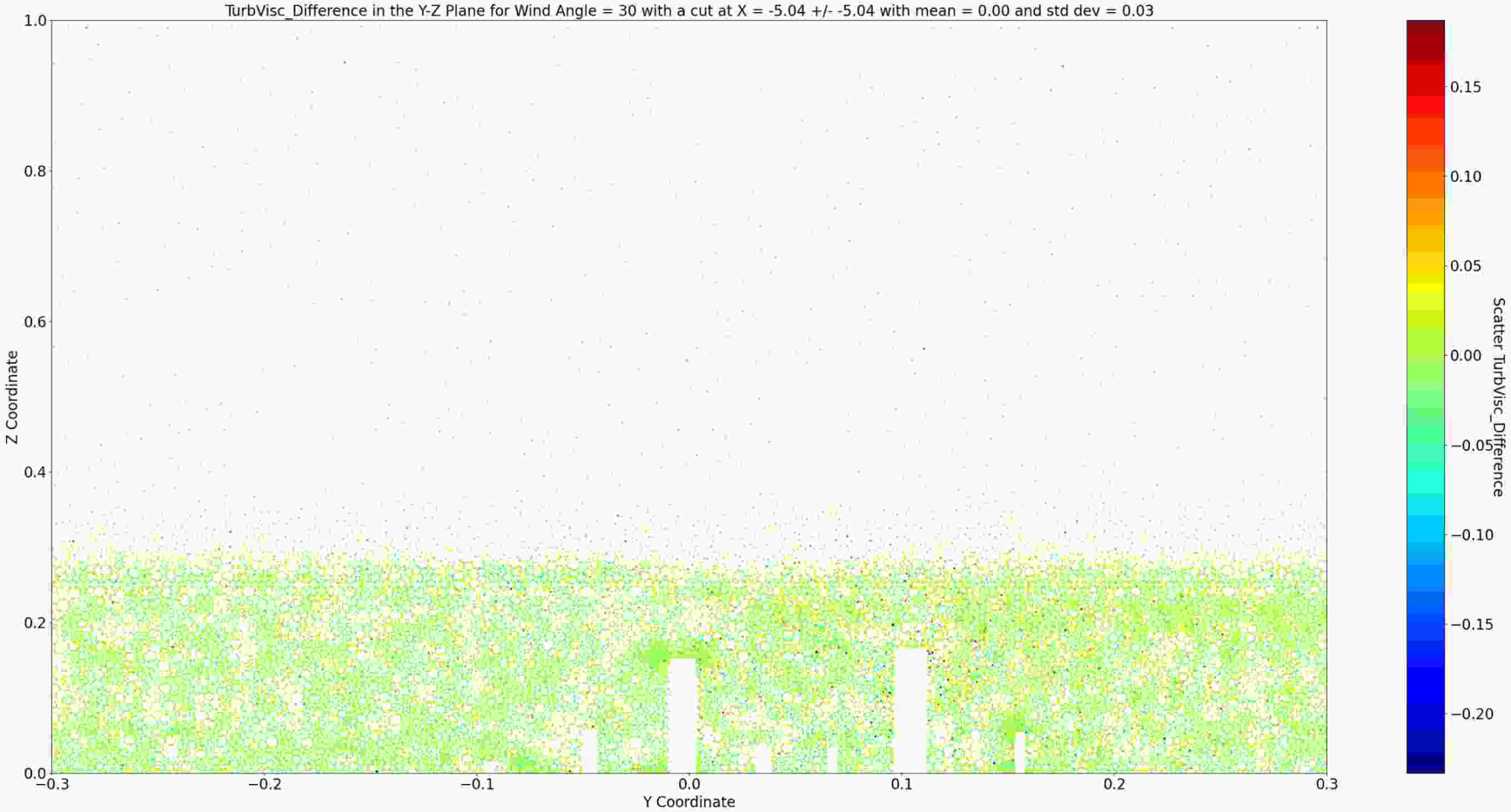
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

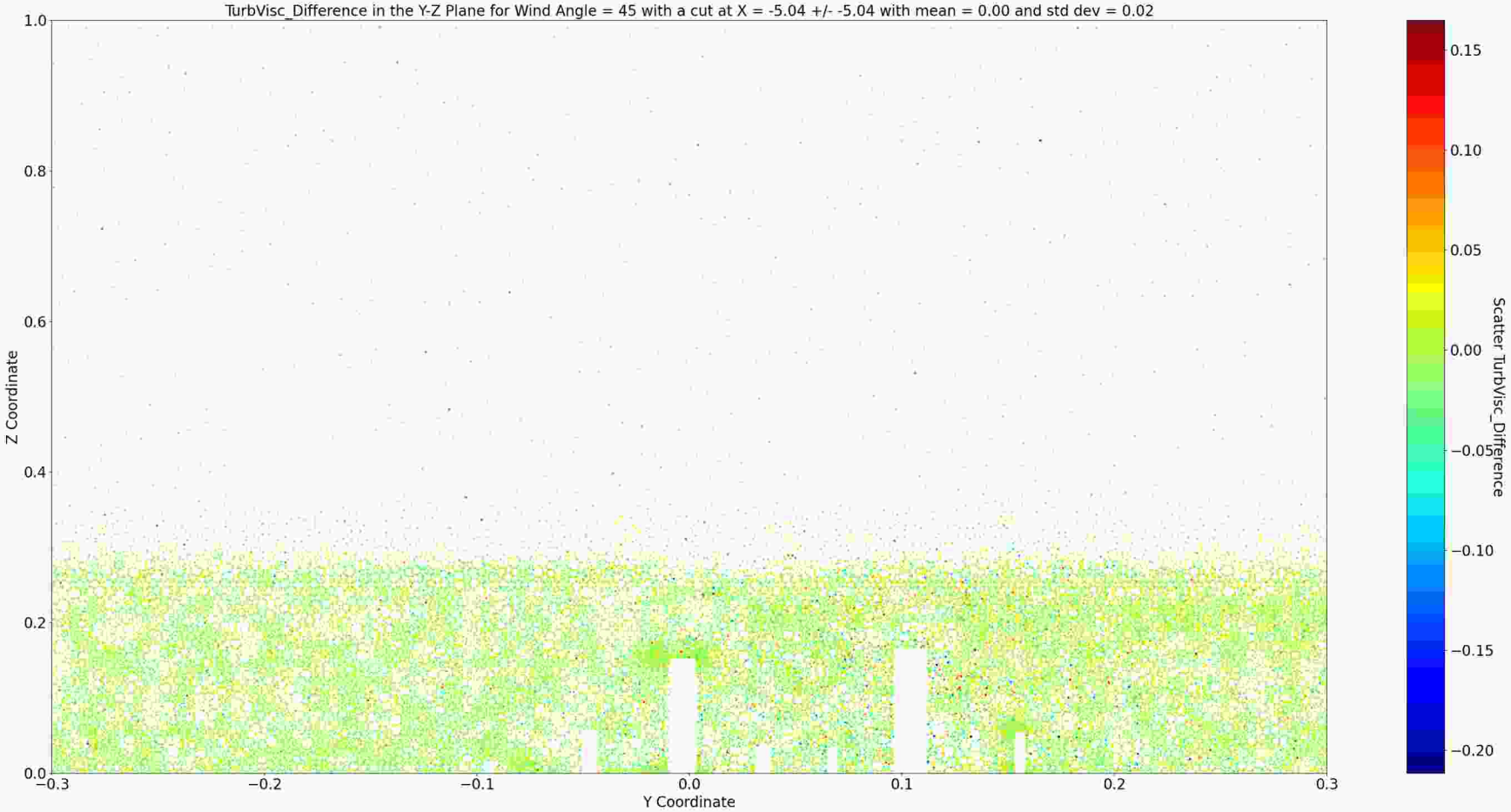


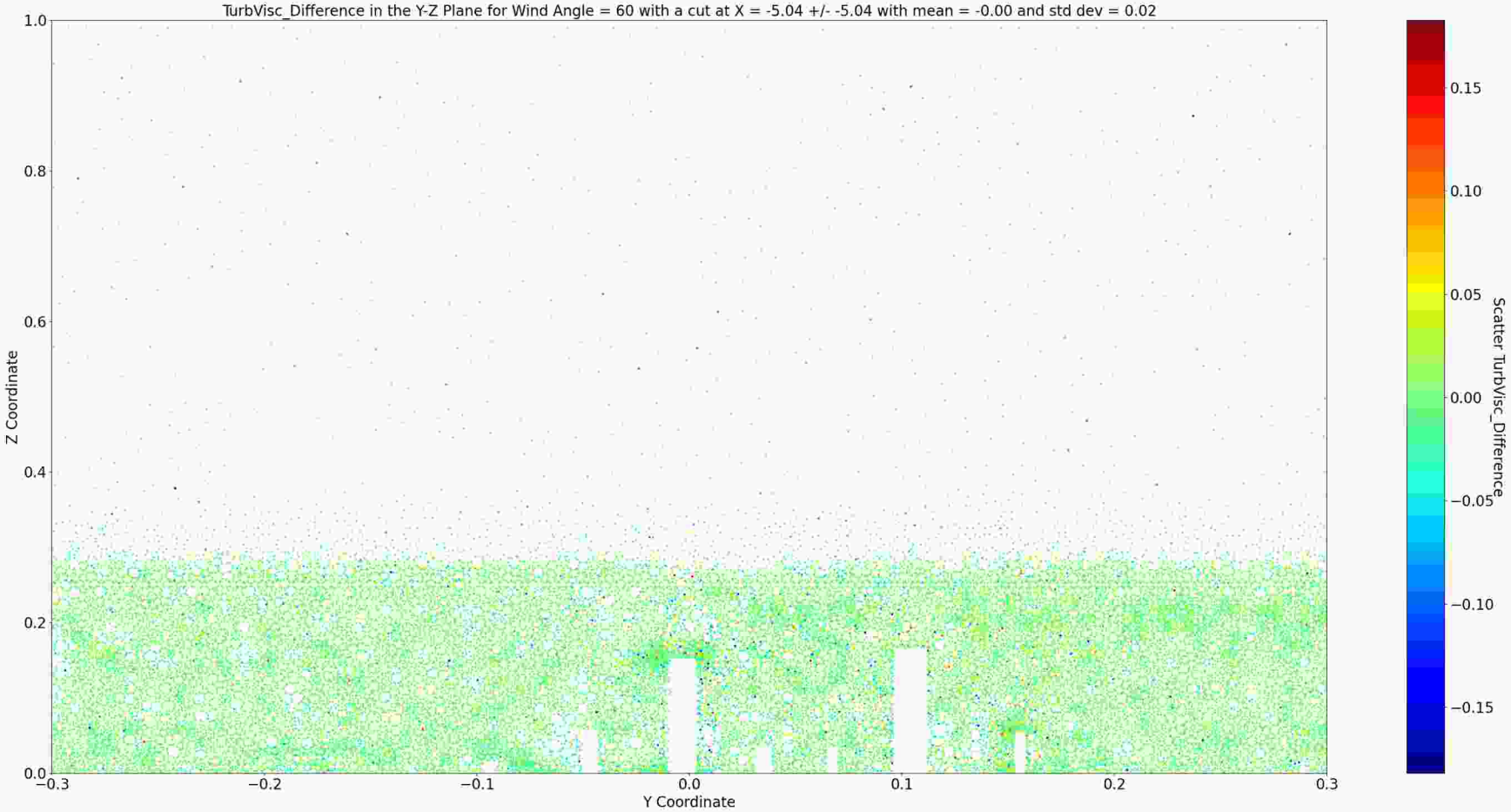


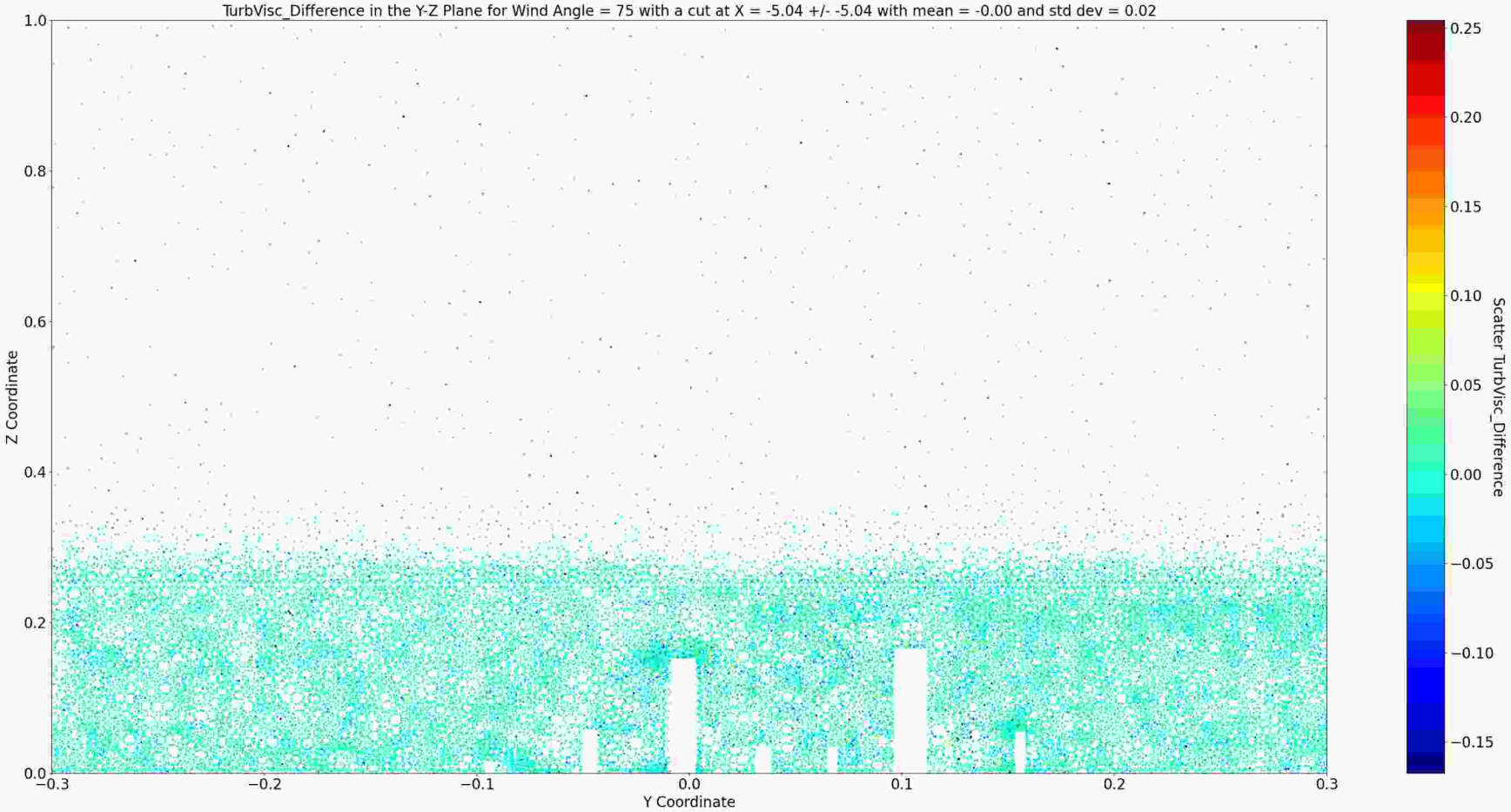

TurbVisc_Difference in the Y-Z Plane for Wind Angle = 0 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.04
Z Coordinate
Y Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
4
3
2
1
0
−1

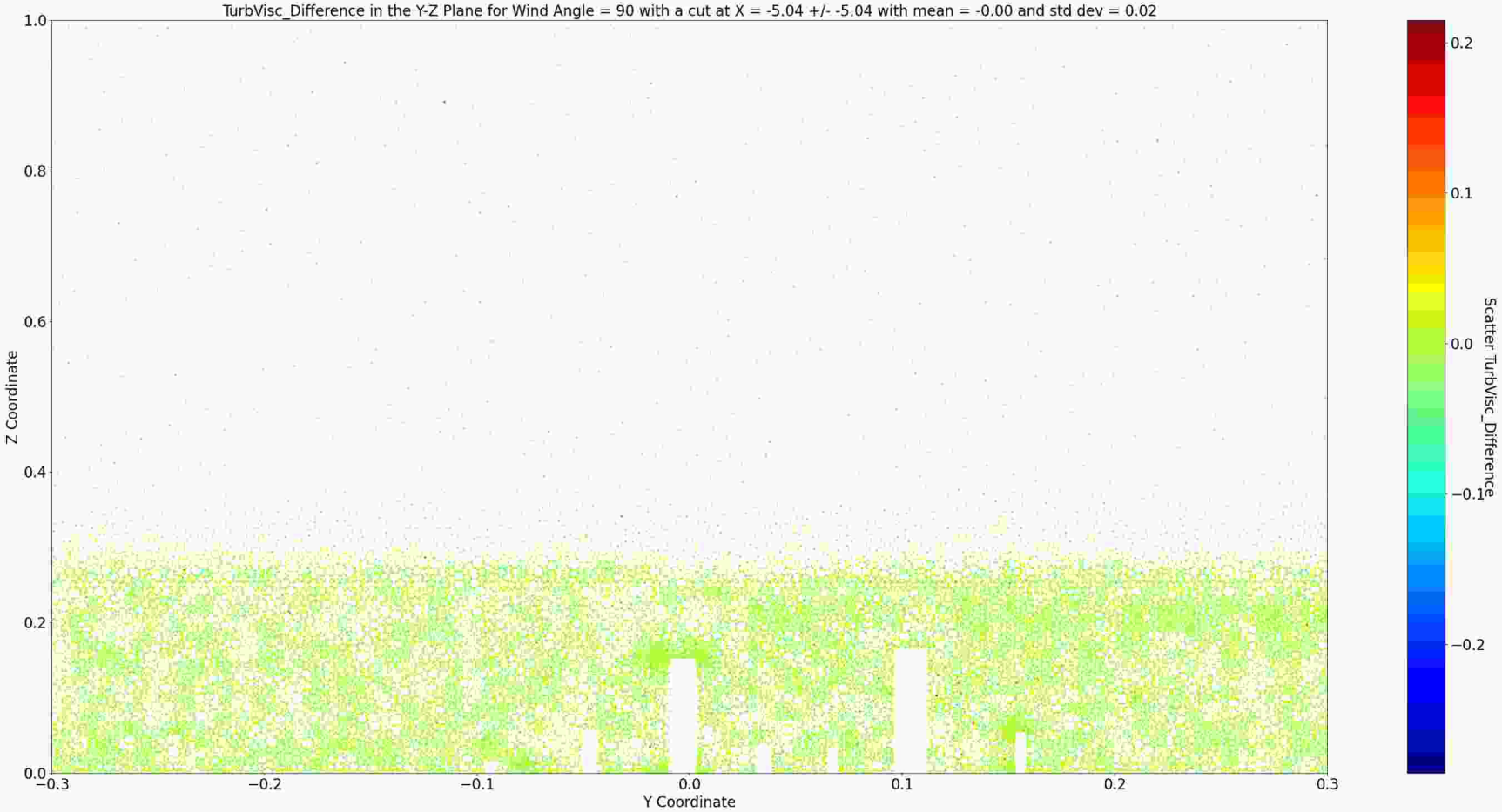

TurbVisc_Difference in the Y-Z Plane for Wind Angle = 15 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.03
Z Coordinate
Y Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.2
0.1
0.0
−0.1
−0.2

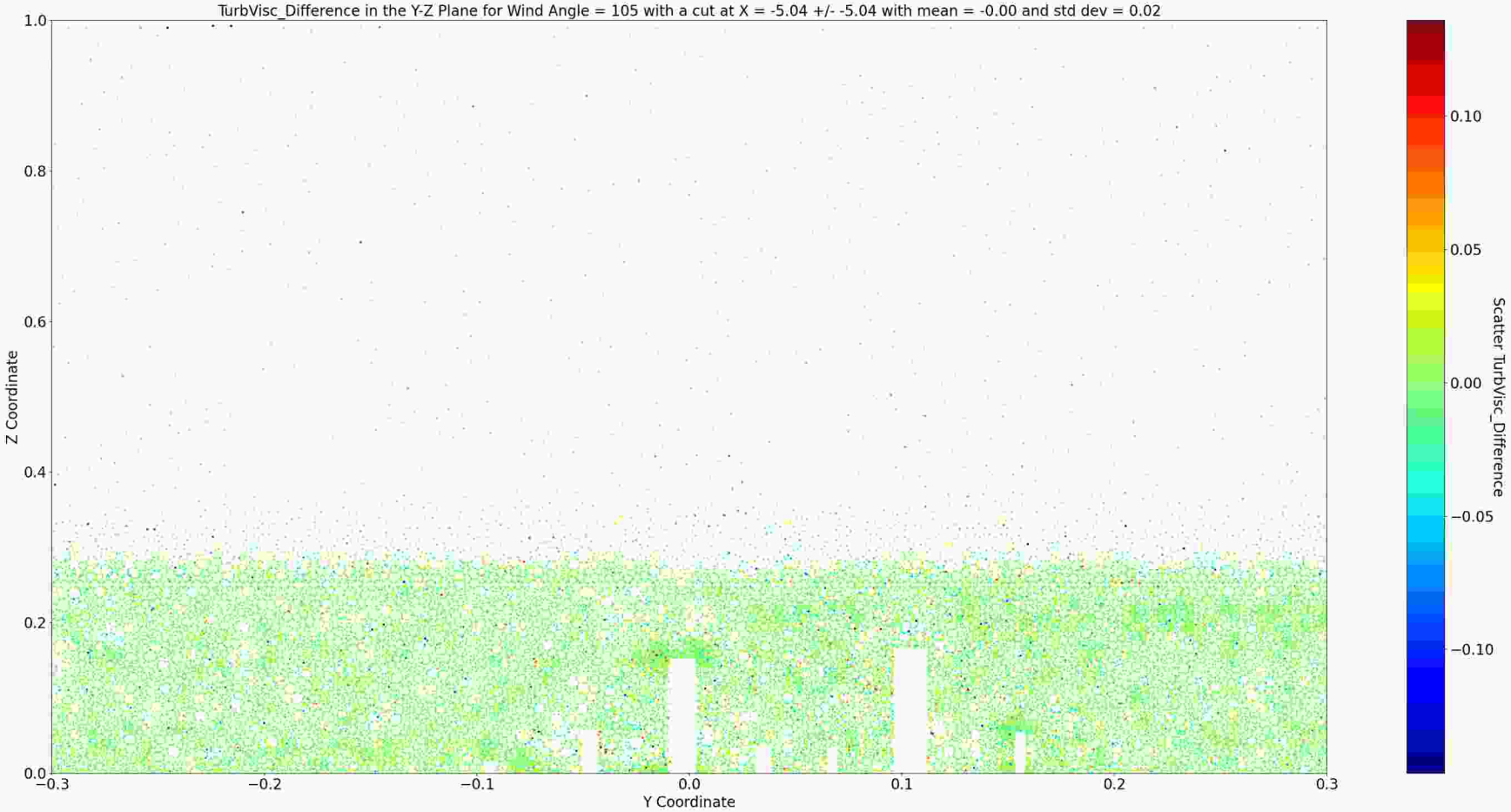

TurbVisc_Difference in the Y-Z Plane for Wind Angle = 30 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.03
Z Coordinate
Y Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
−0.20

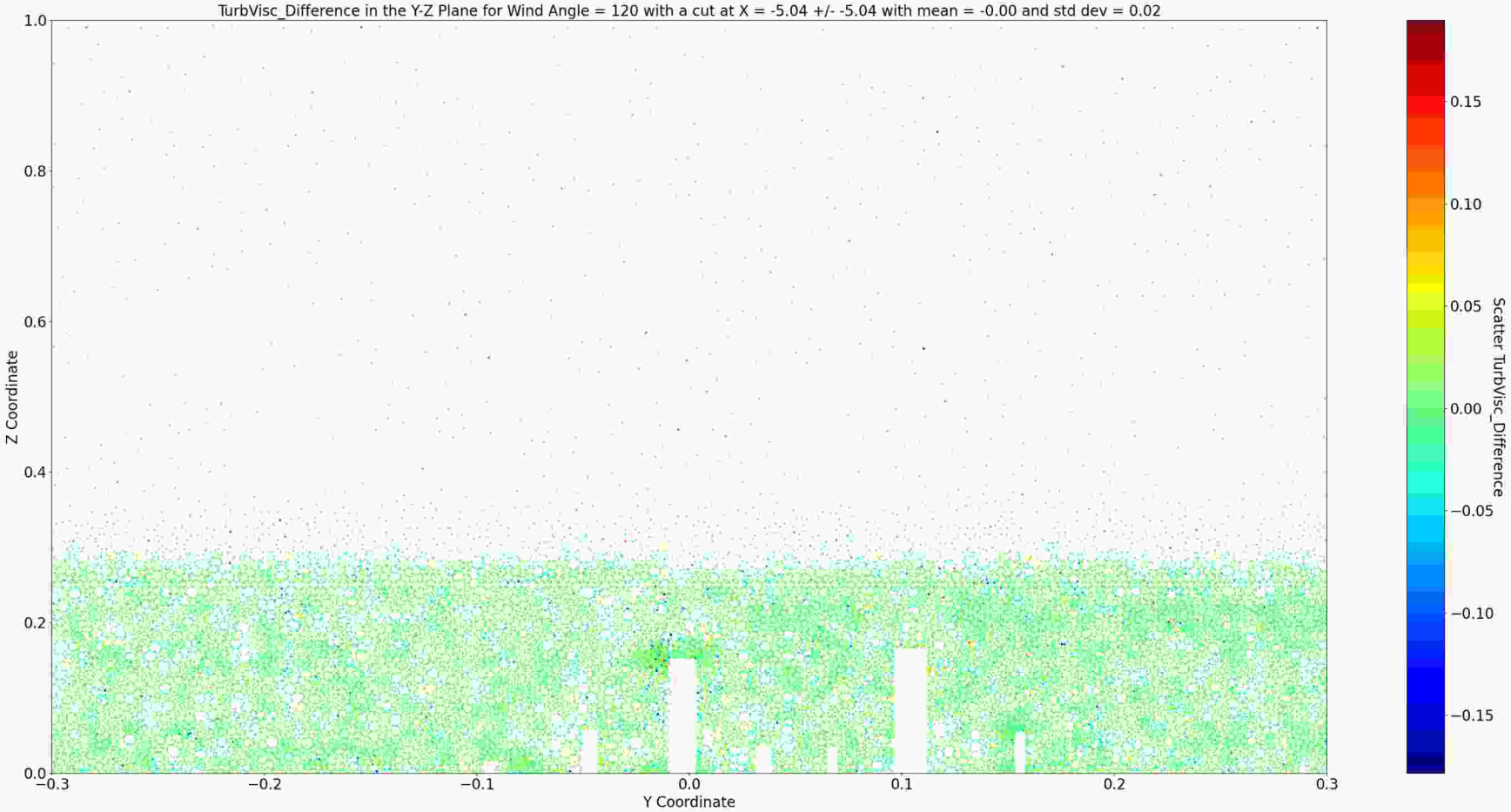

TurbVisc_Difference in the Y-Z Plane for Wind Angle = 45 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.02
Z Coordinate
Y Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
−0.20

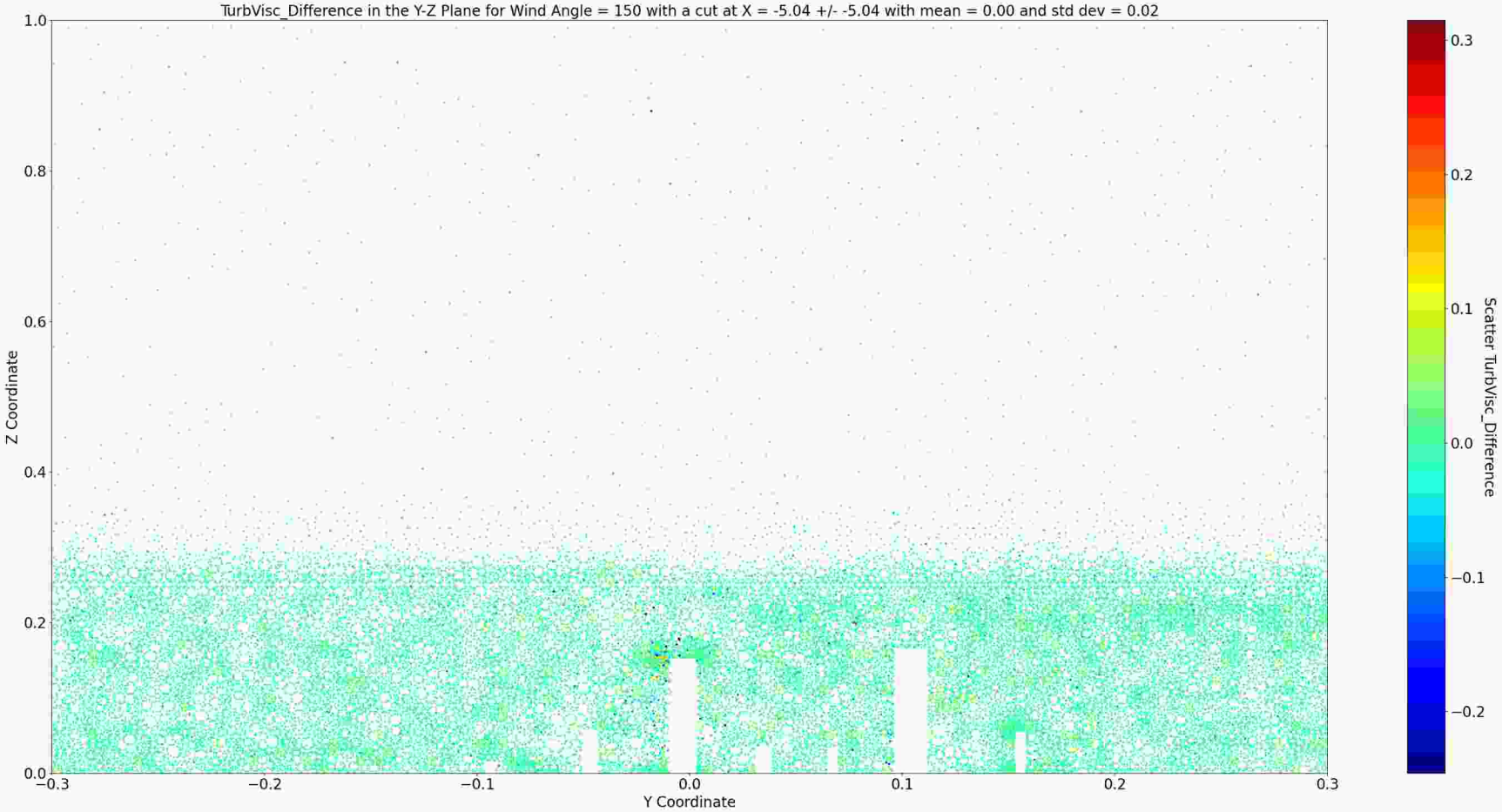

TurbVisc_Difference in the Y-Z Plane for Wind Angle = 60 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.02
Z Coordinate
Y Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15

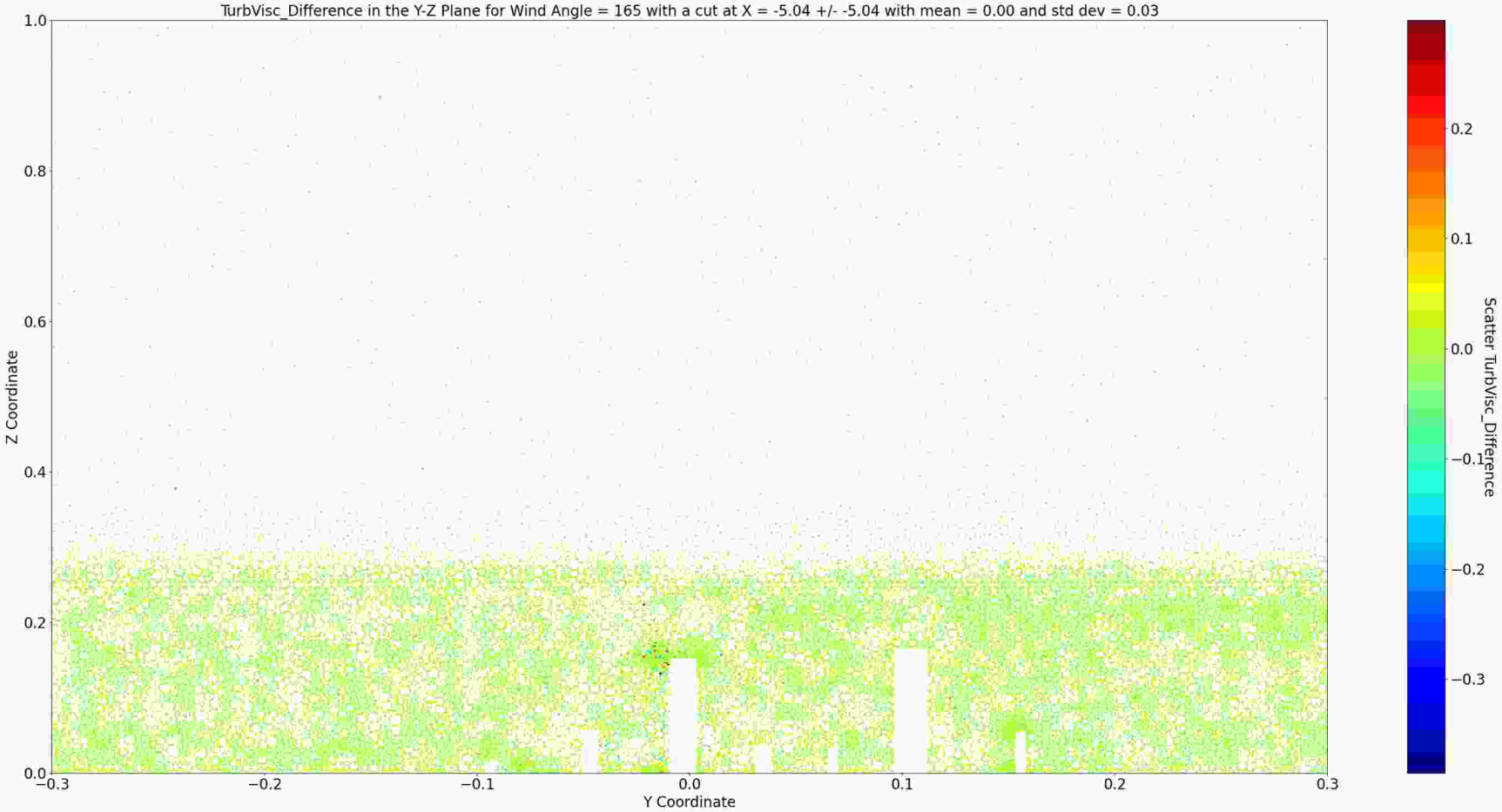

TurbVisc_Difference in the Y-Z Plane for Wind Angle = 75 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.02
Z Coordinate
Y Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.25
0.20
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15

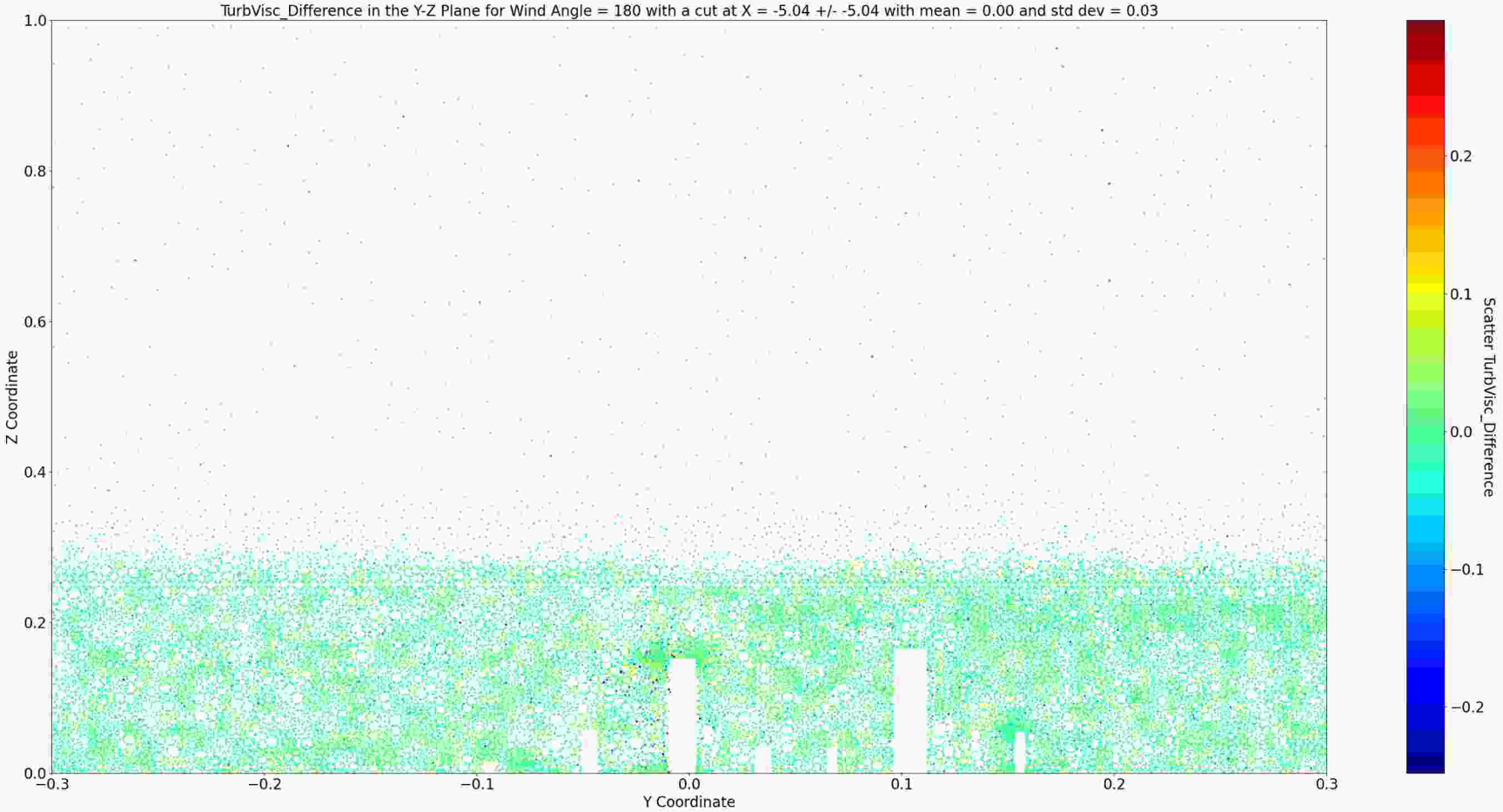

TurbVisc_Difference in the Y-Z Plane for Wind Angle = 90 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.02
Z Coordinate
Y Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.2
0.1
0.0
−0.1
−0.2


TurbVisc_Difference in the Y-Z Plane for Wind Angle = 105 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.02
Z Coordinate
Y Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.10
0.05
0.00
−0.05
−0.10

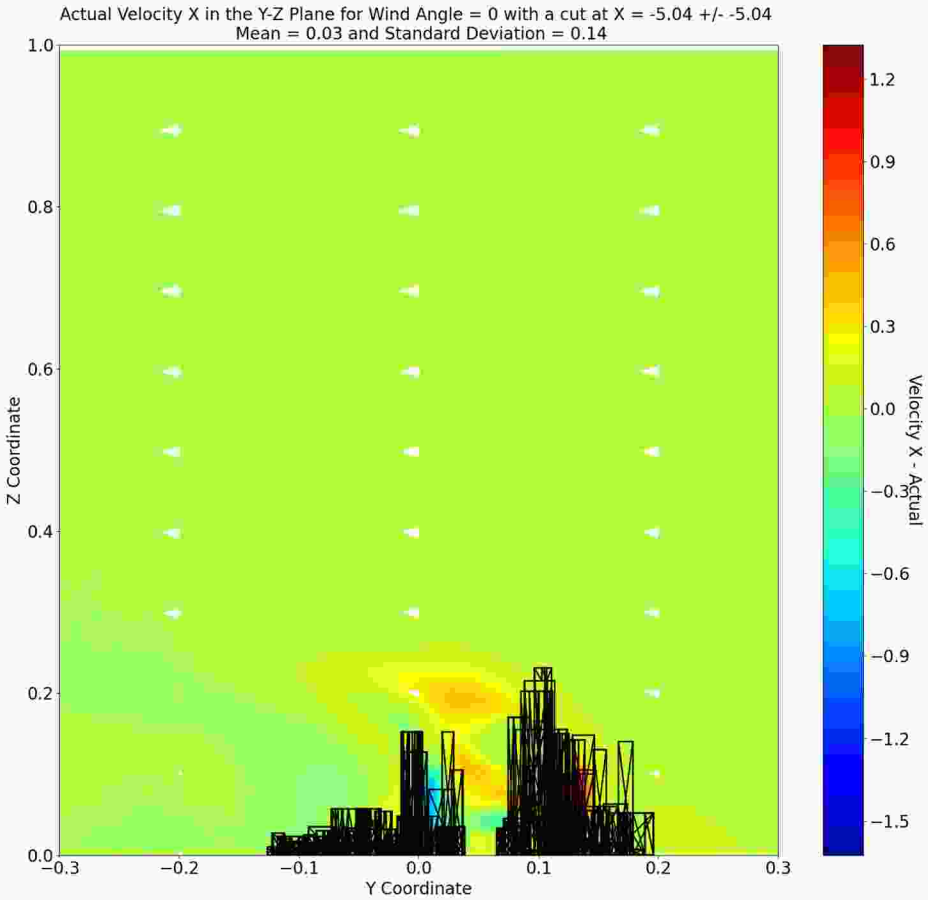

TurbVisc_Difference in the Y-Z Plane for Wind Angle = 120 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.02
Z Coordinate
Y Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15

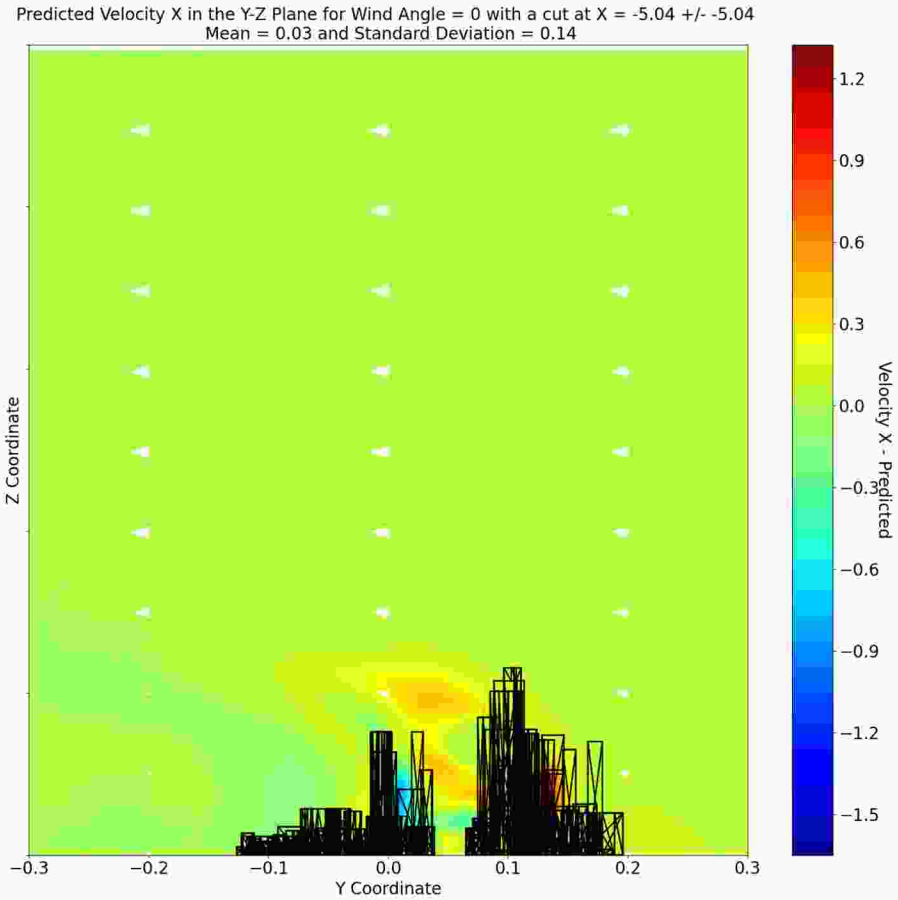

TurbVisc_Difference in the Y-Z Plane for Wind Angle = 150 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.02
Z Coordinate
Y Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.3
0.2
0.1
0.0
−0.1
−0.2


TurbVisc_Difference in the Y-Z Plane for Wind Angle = 165 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.03
Z Coordinate
Y Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3

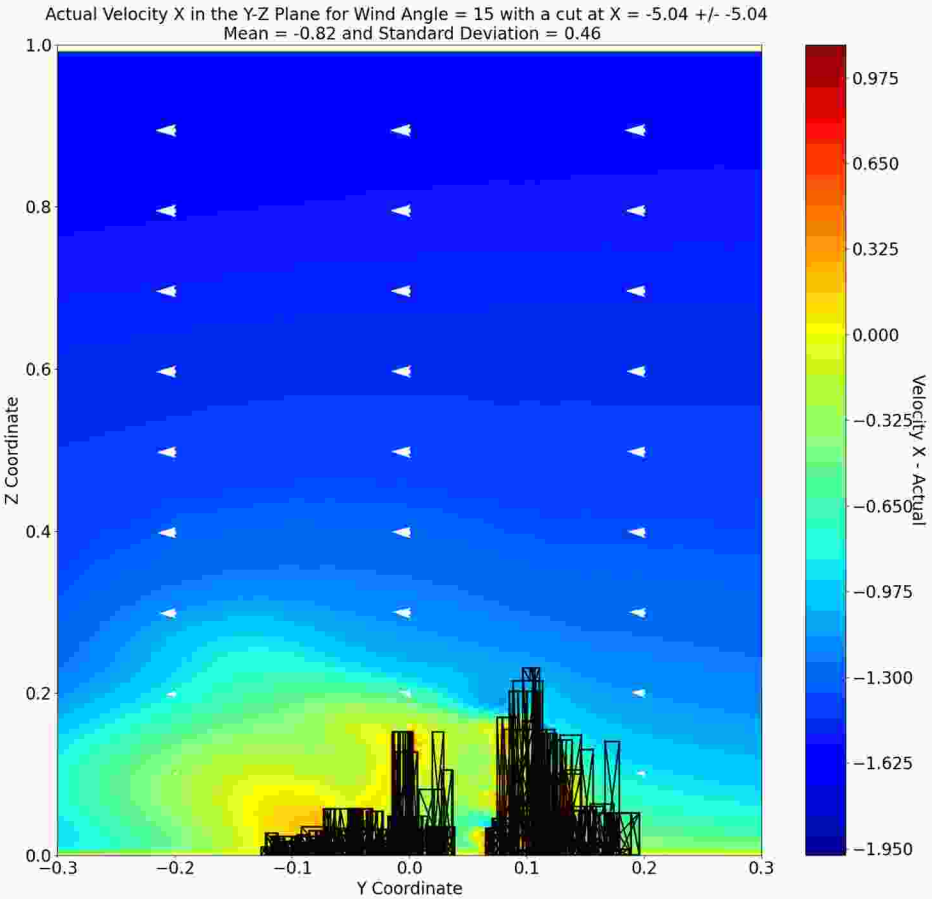

TurbVisc_Difference in the Y-Z Plane for Wind Angle = 180 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.03
Z Coordinate
Y Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.2
0.1
0.0
−0.1
−0.2

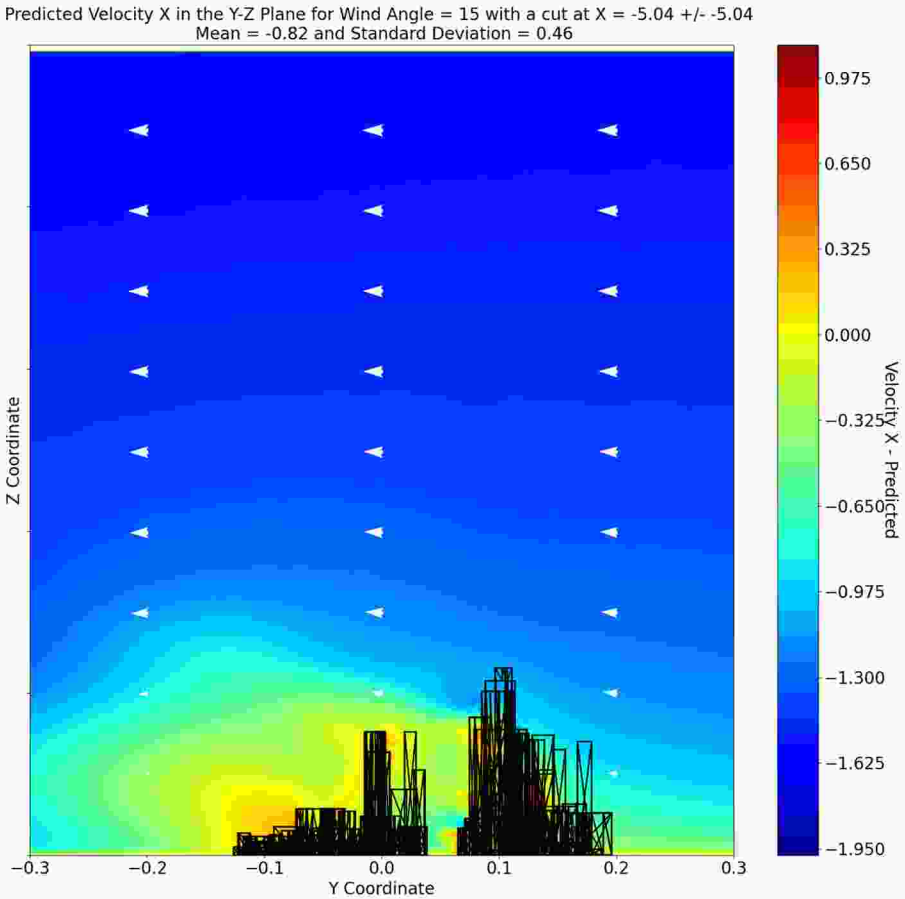
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



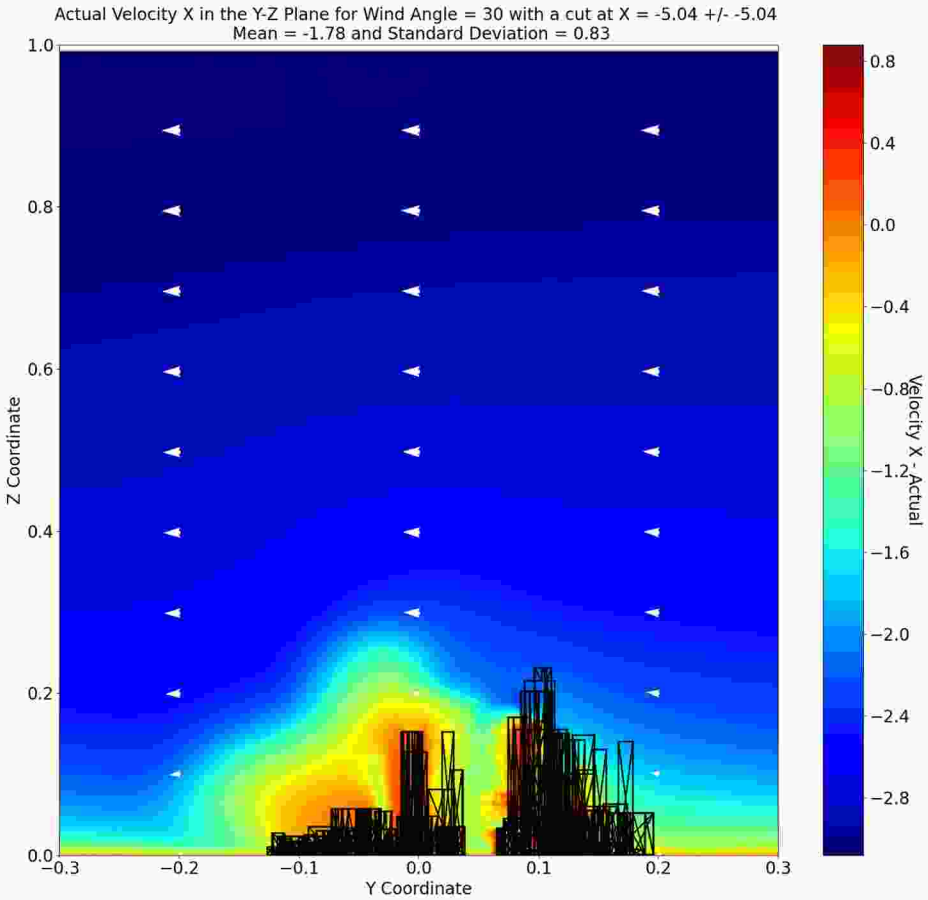


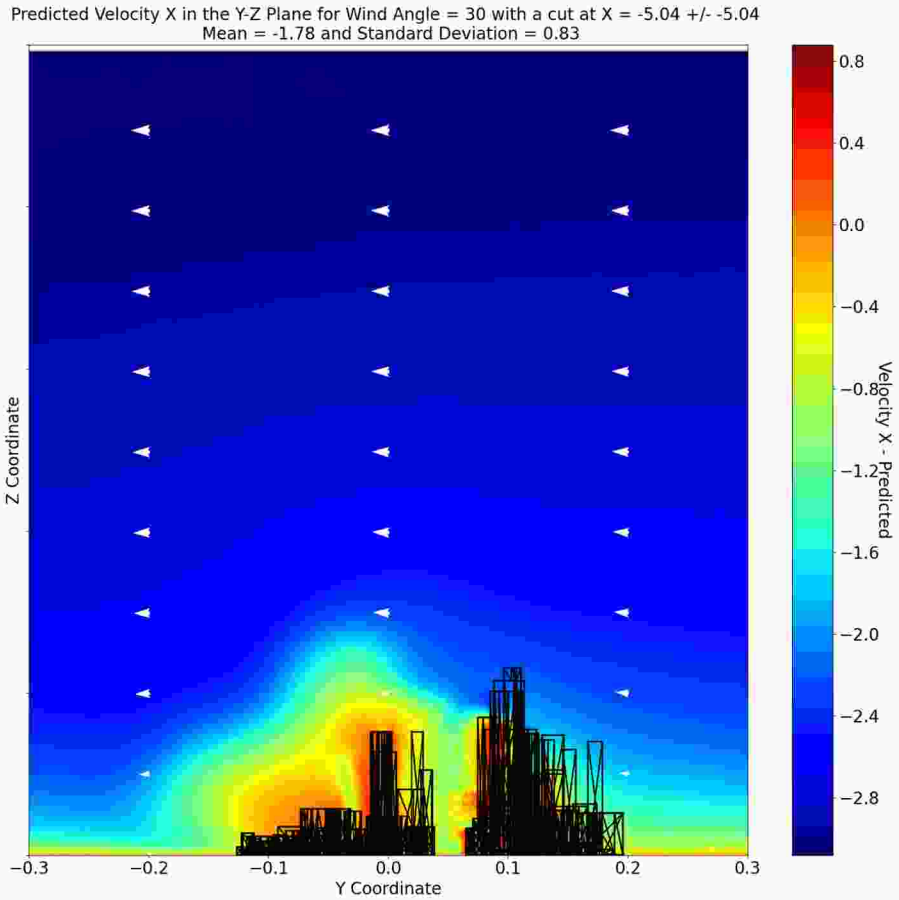
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



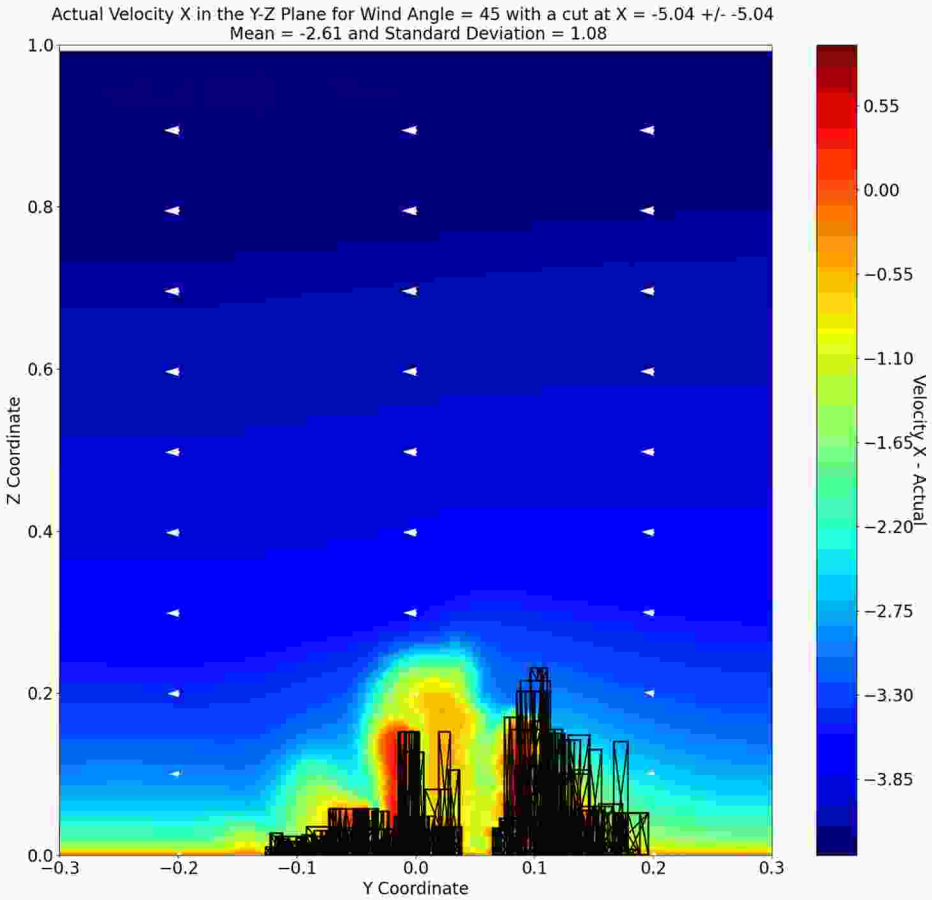


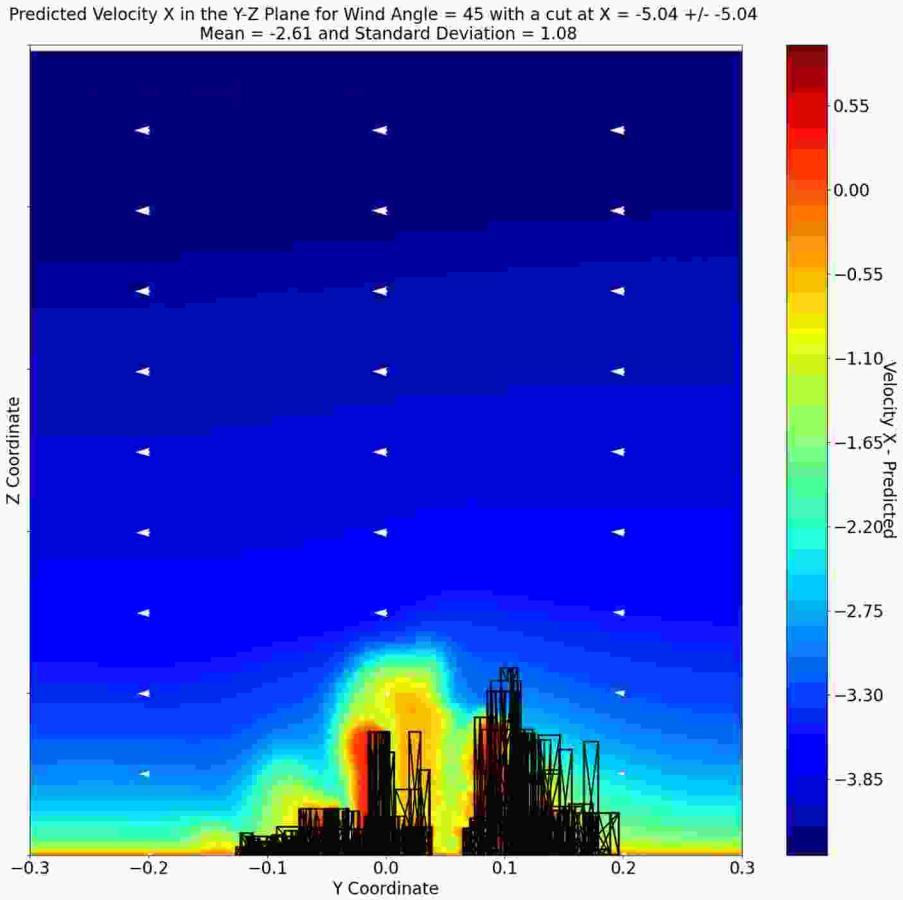
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



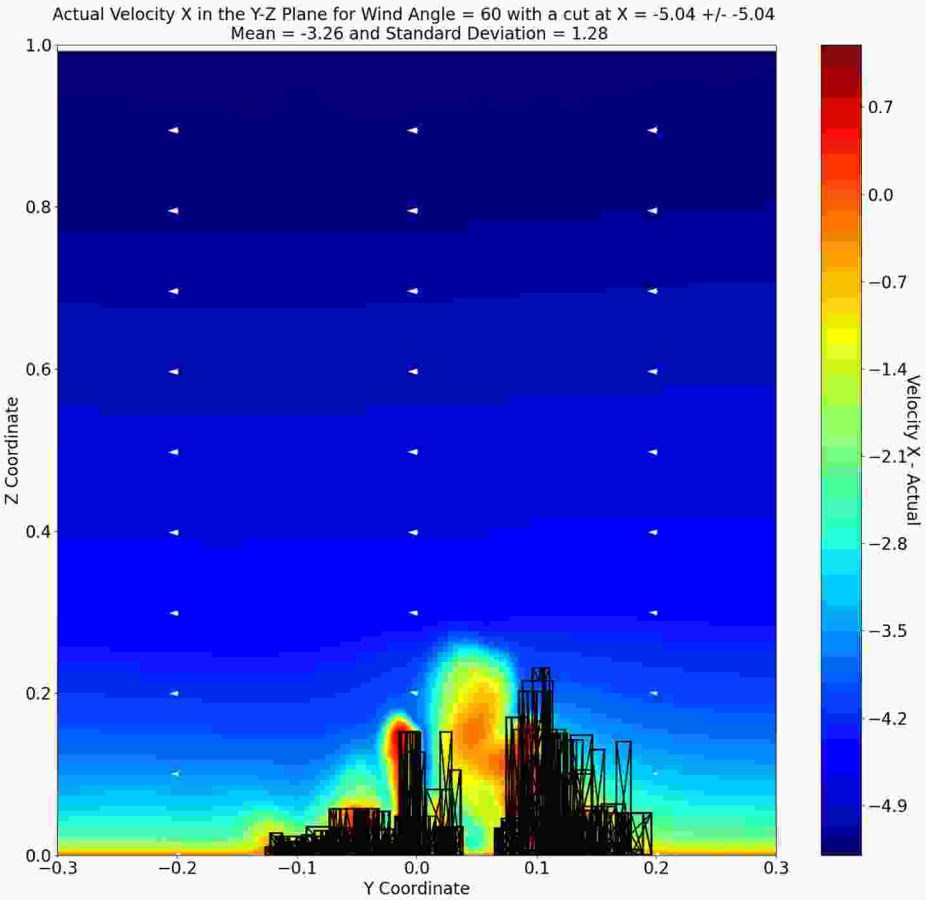


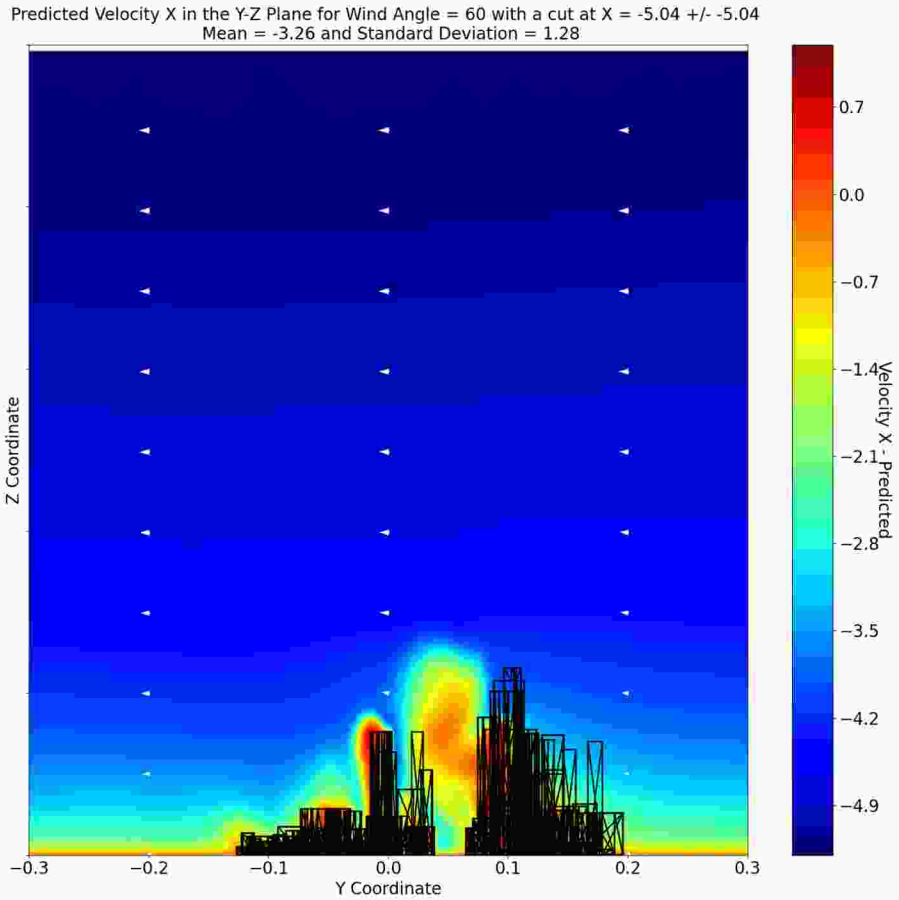
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



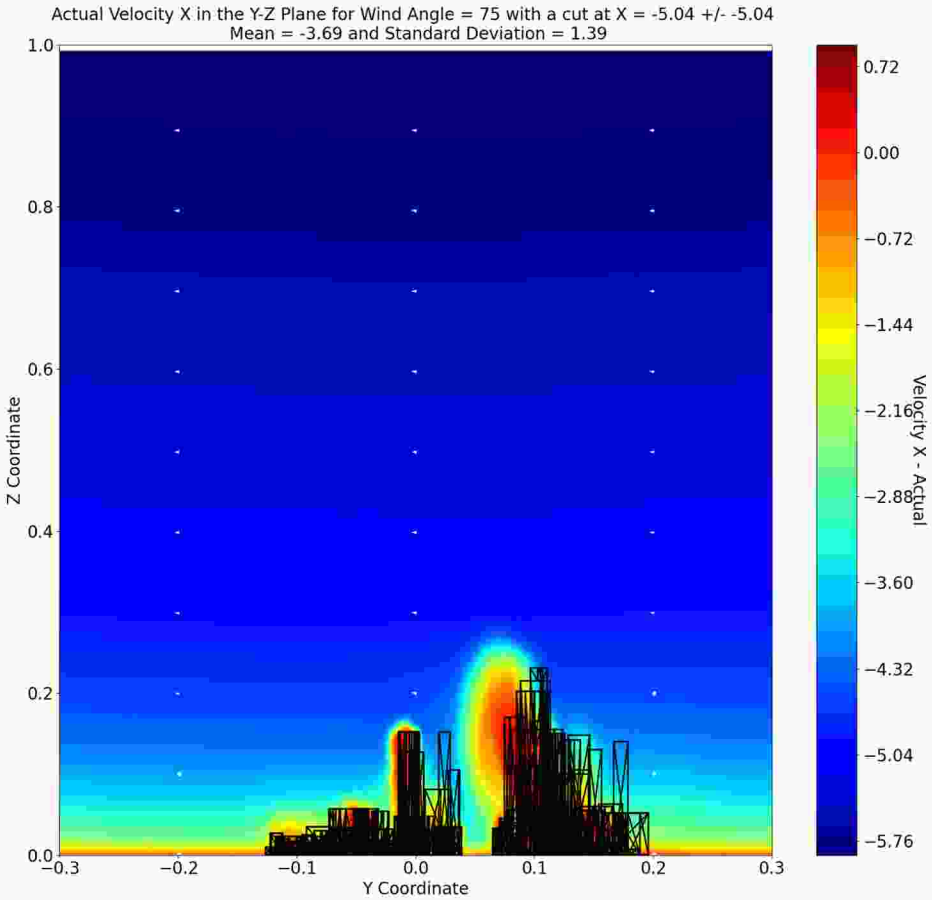


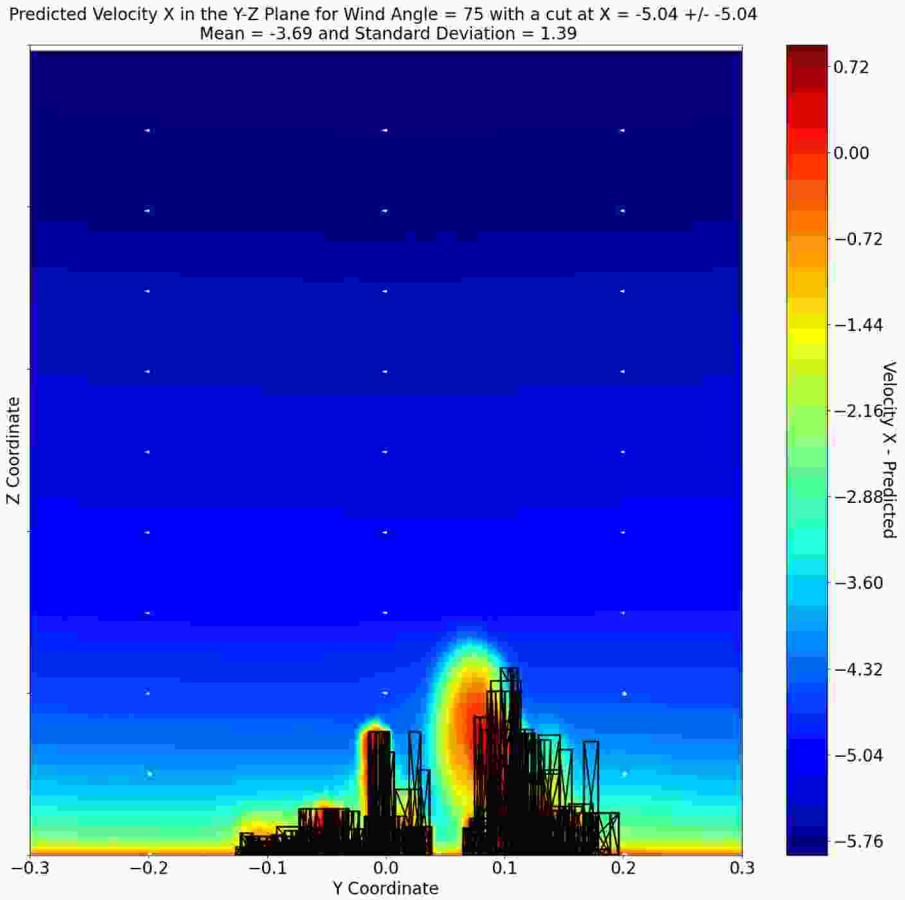
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



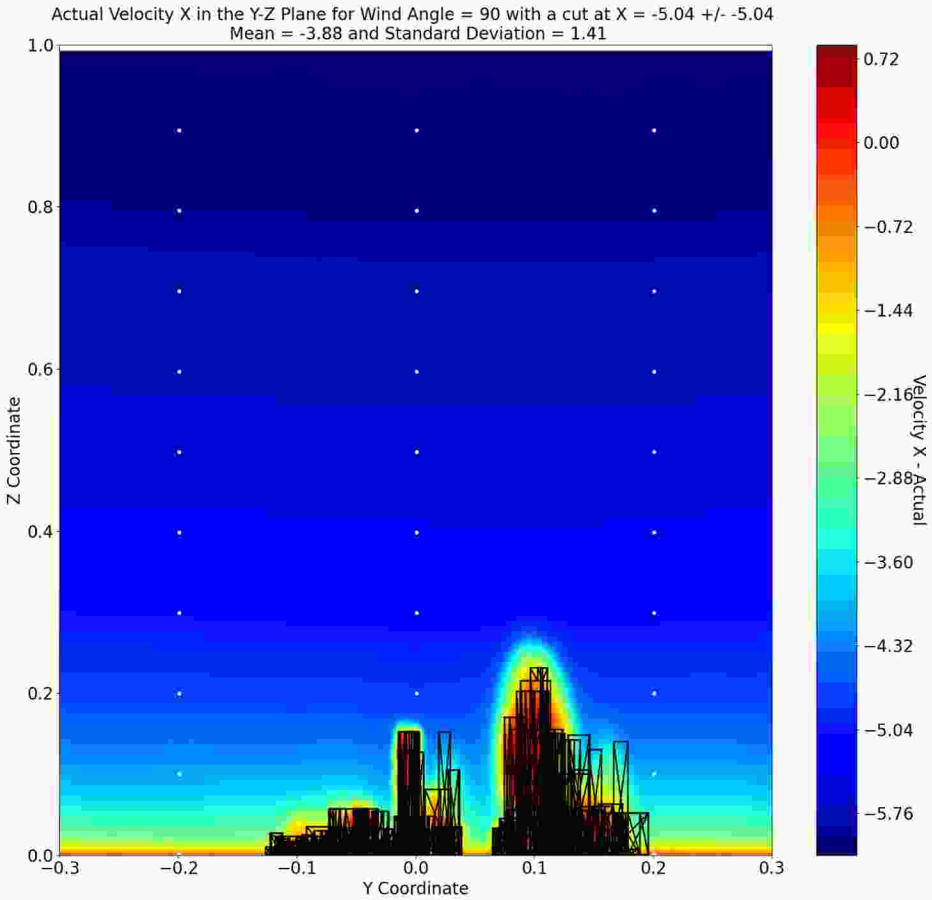


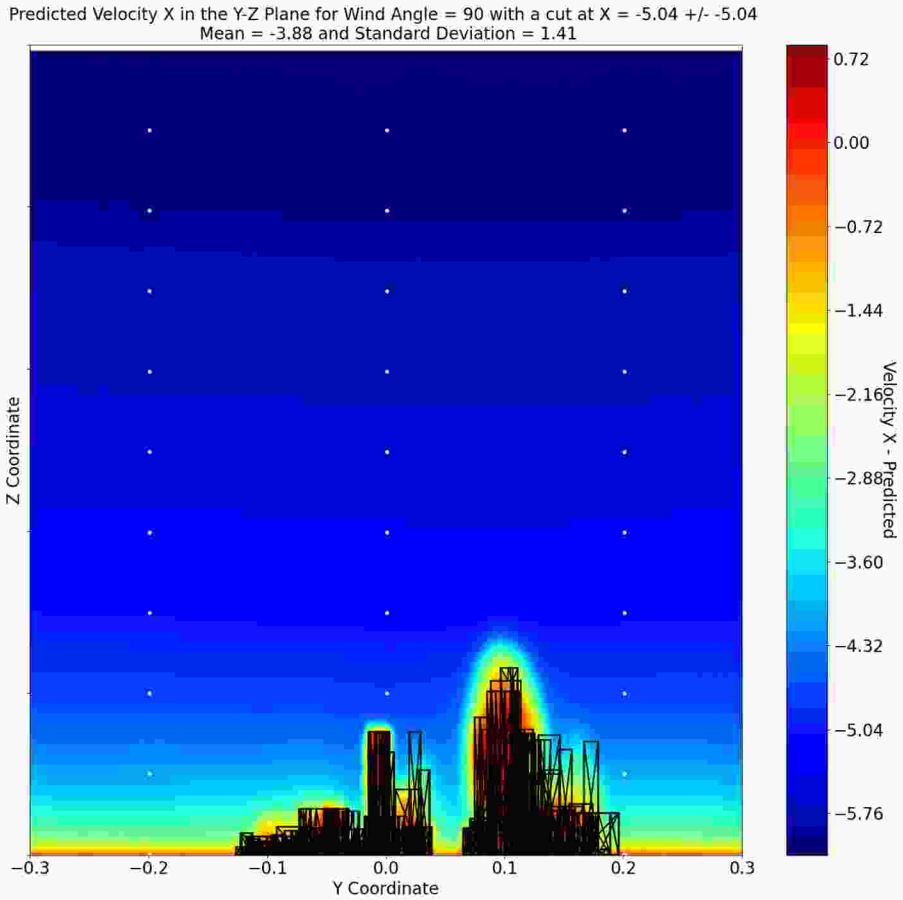
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



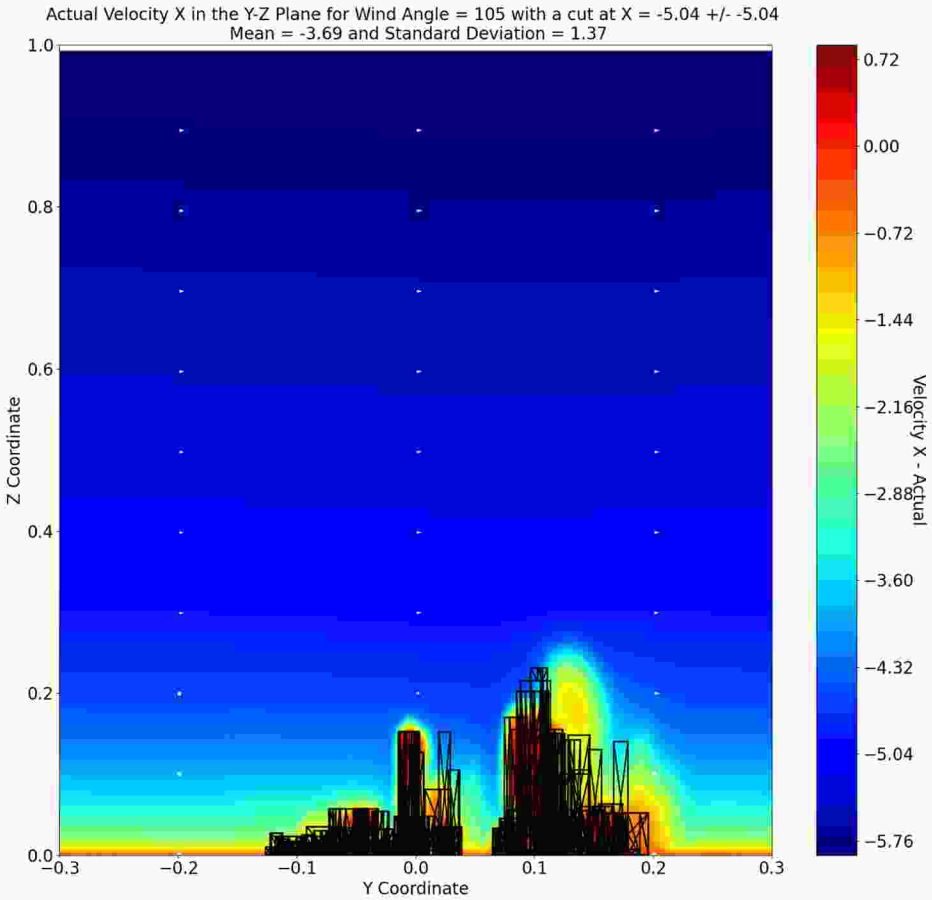


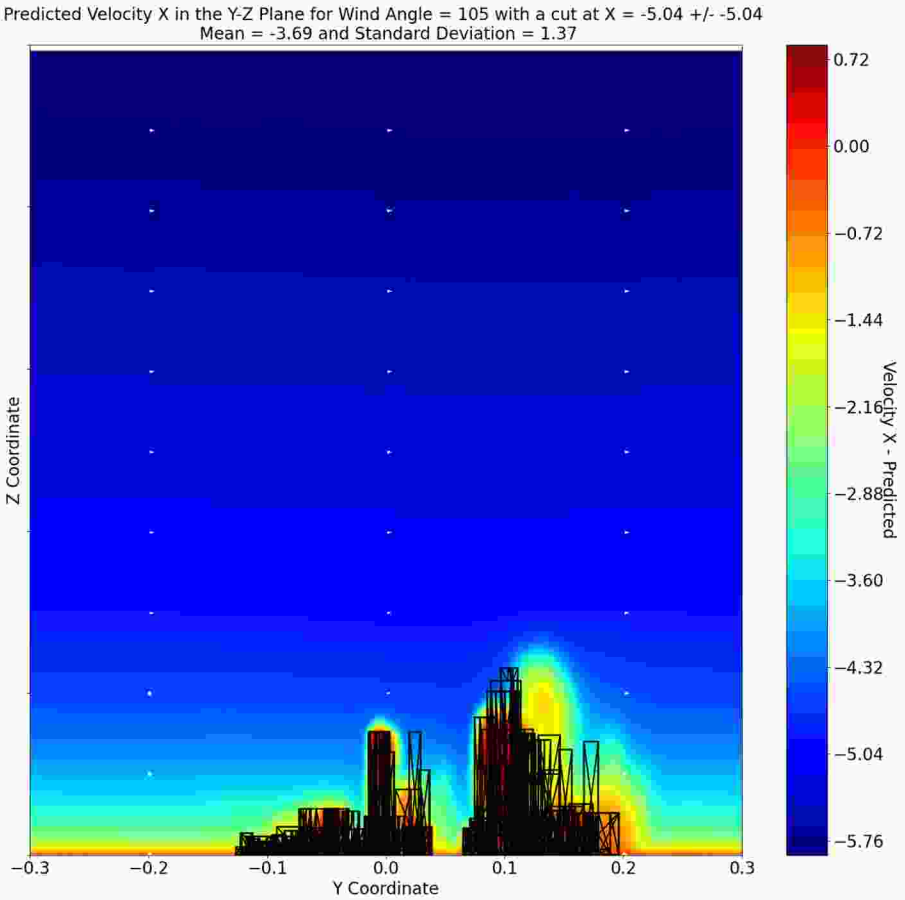
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



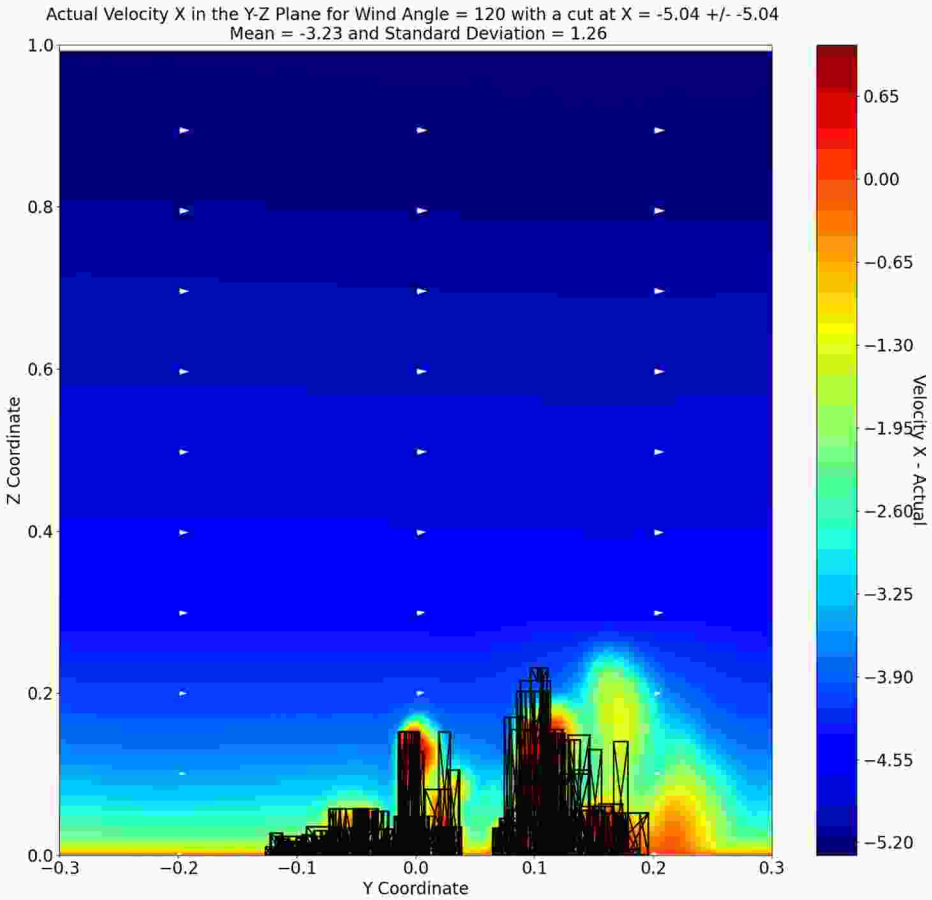


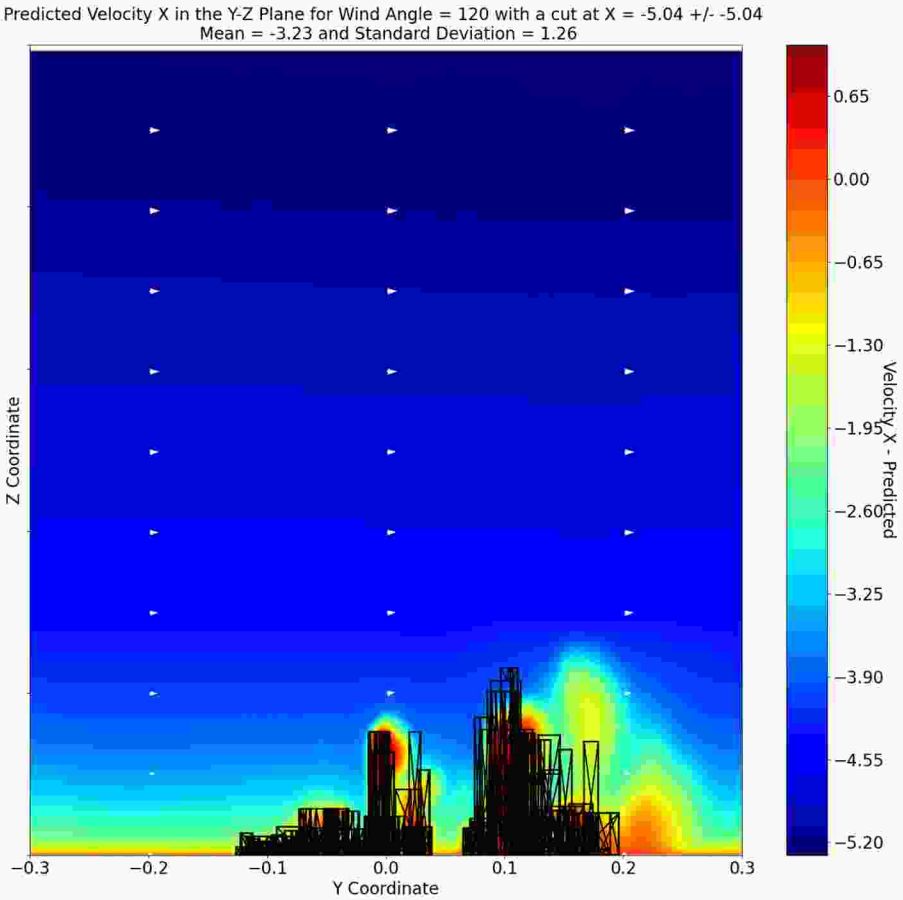
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



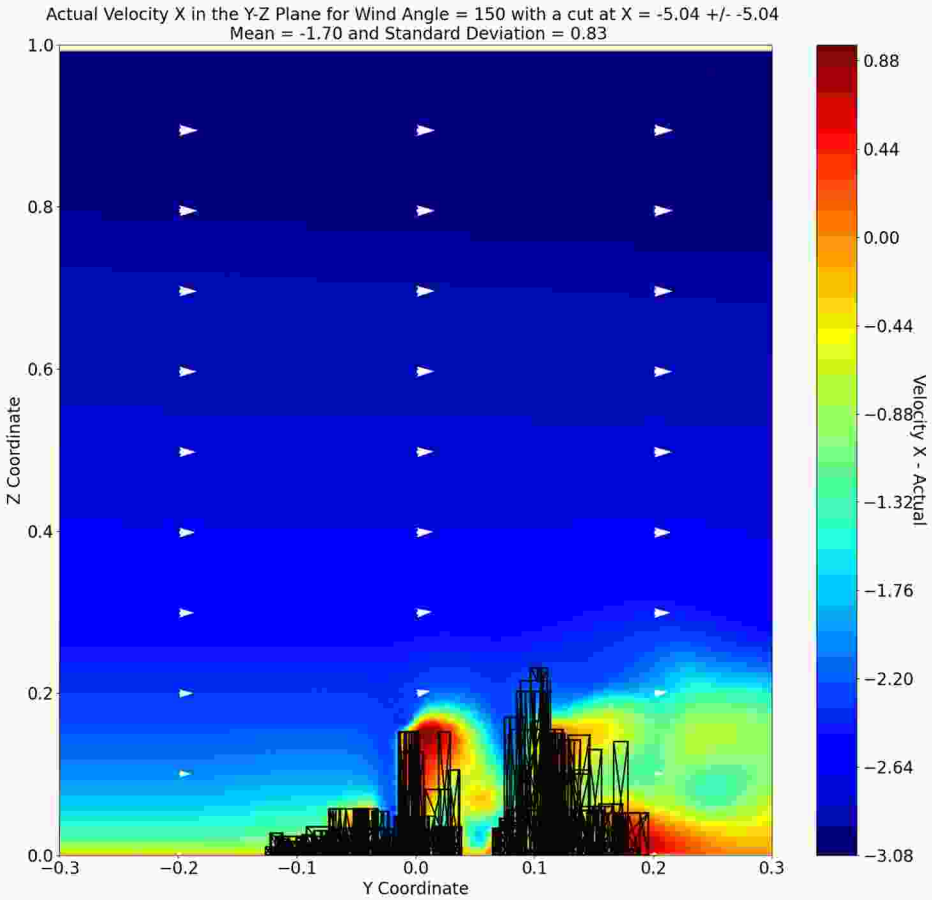


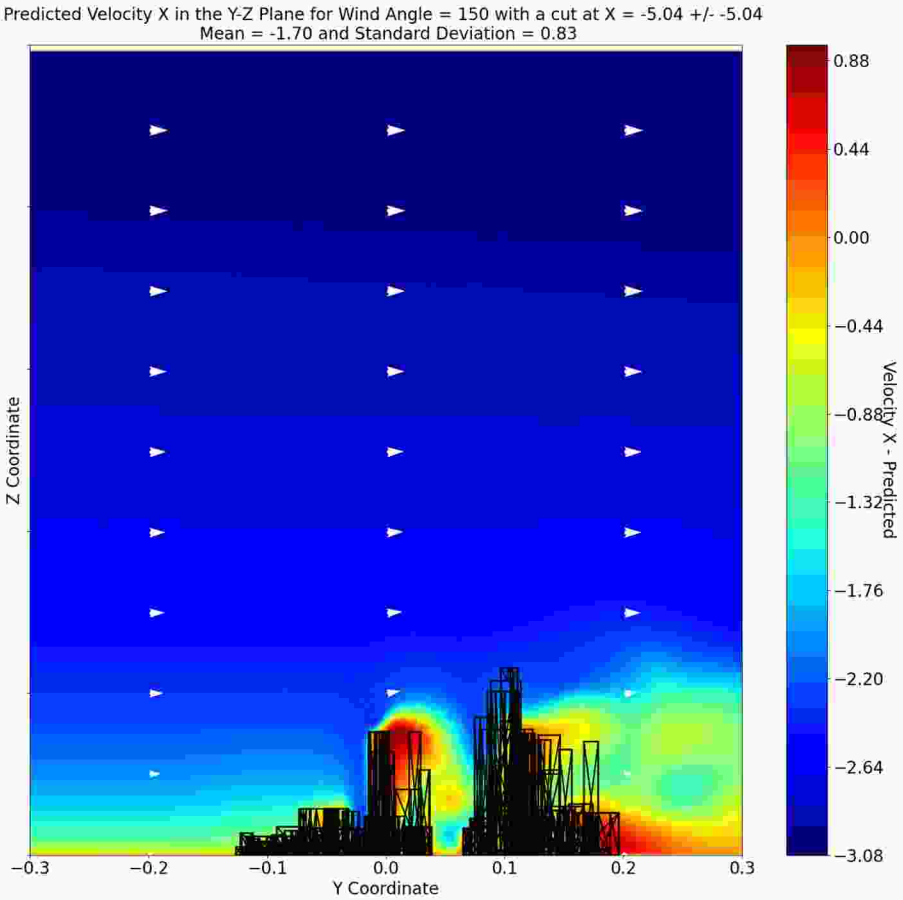
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



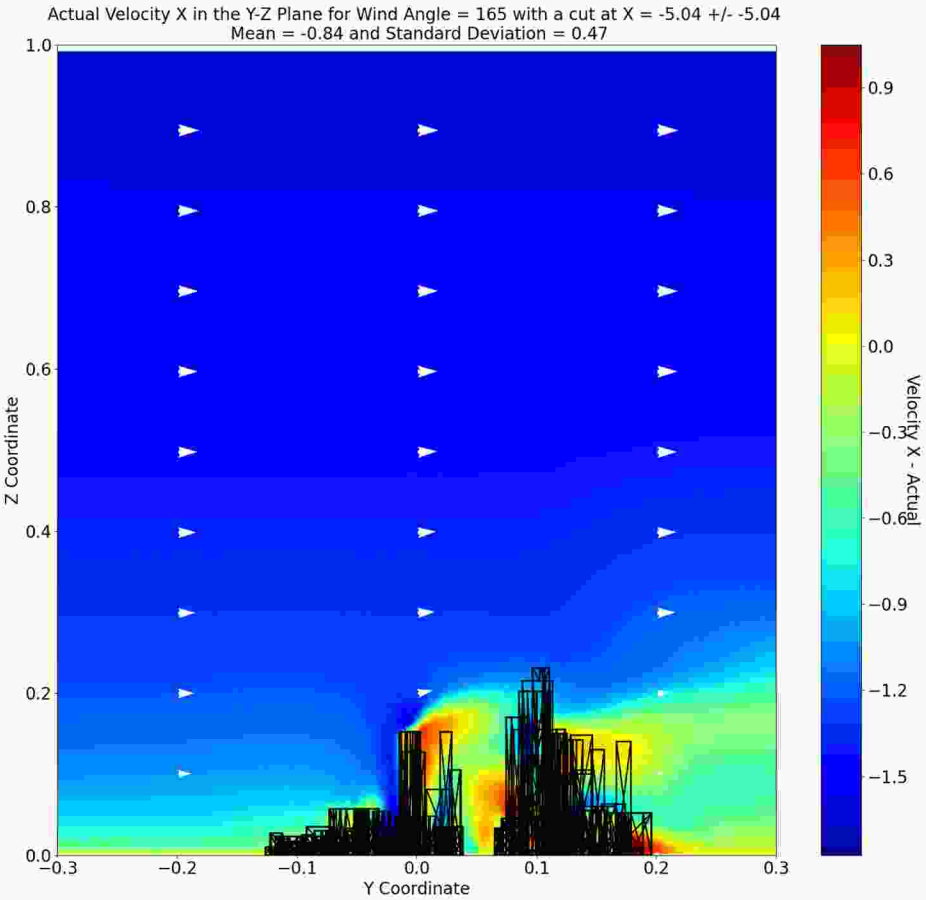


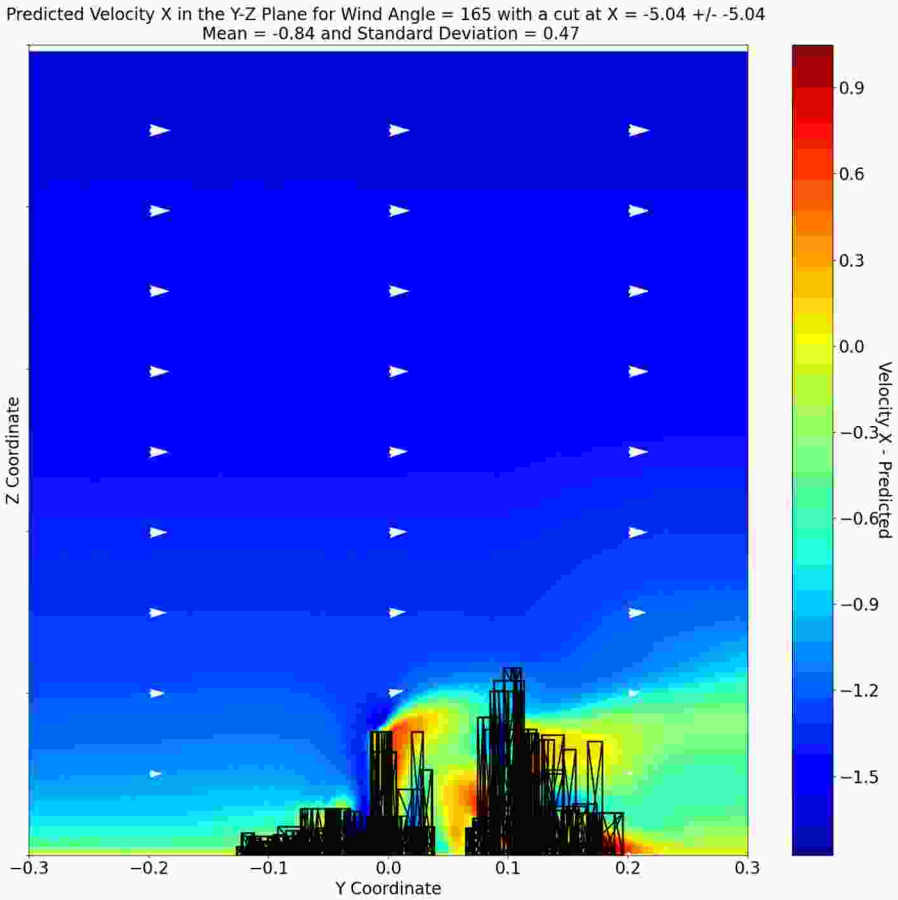
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



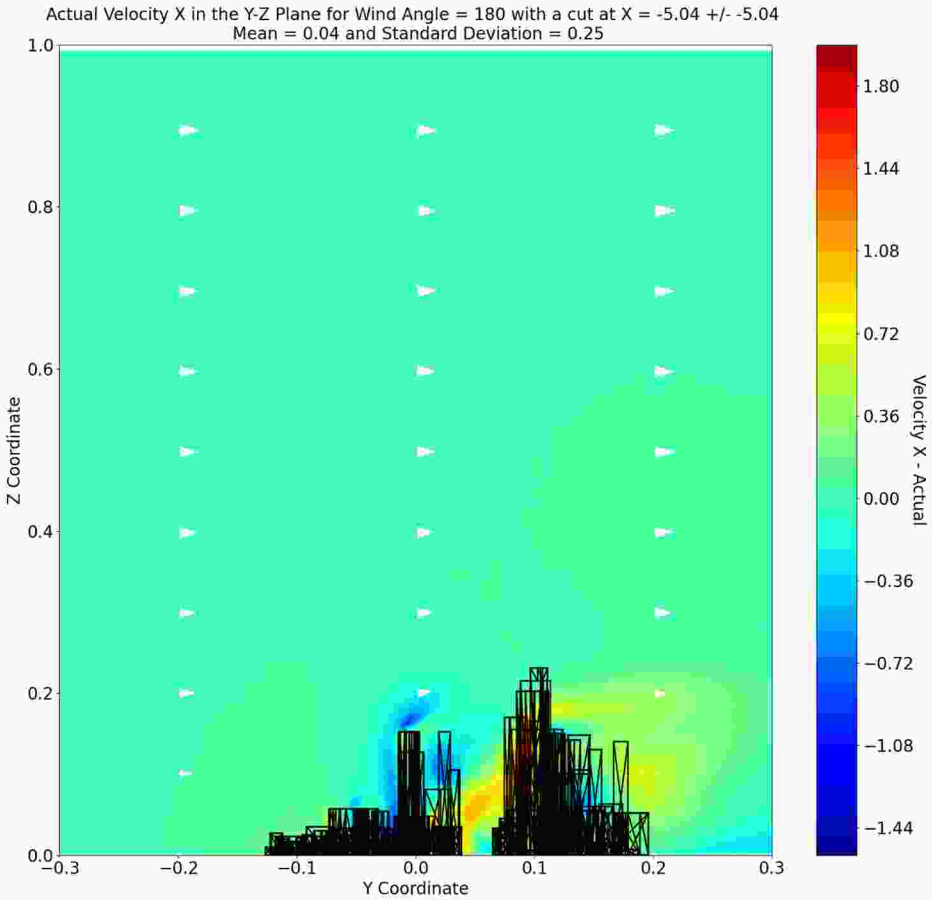


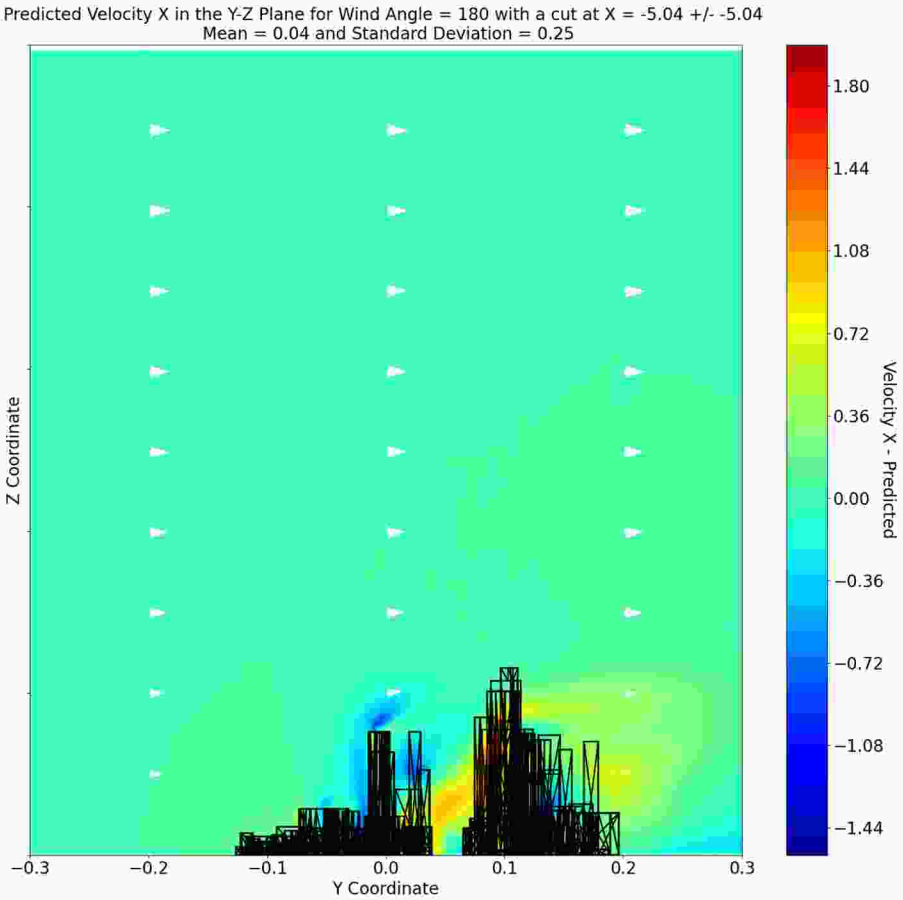
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



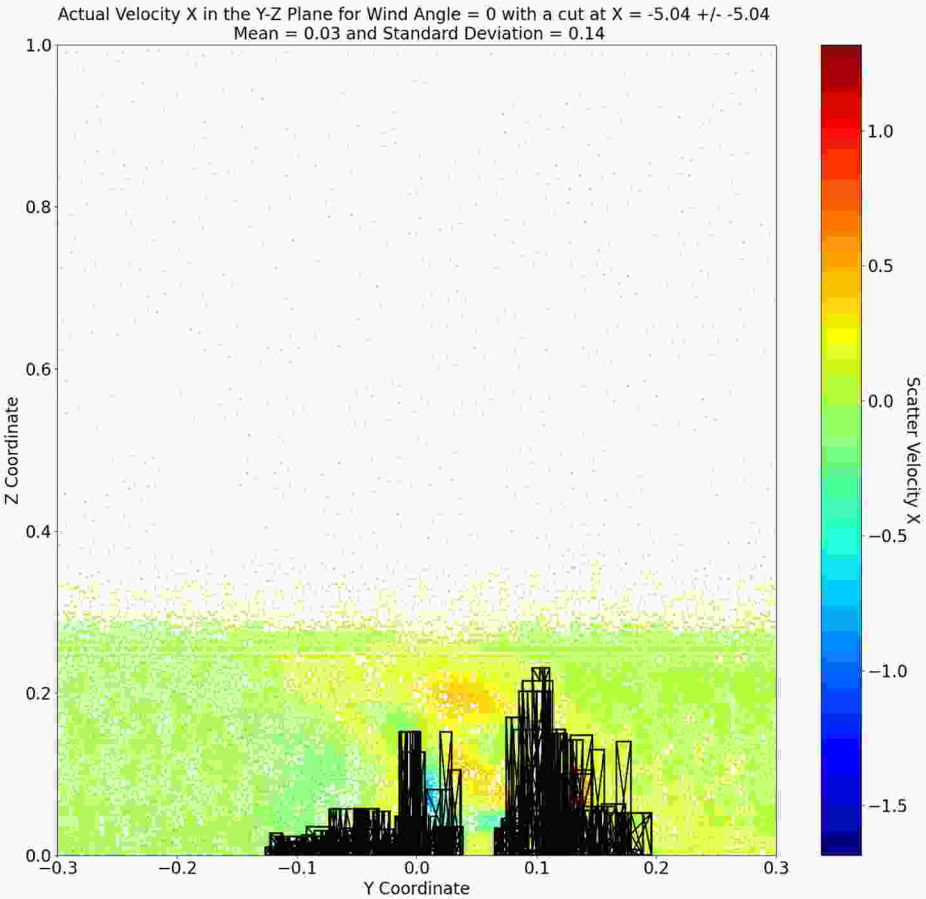


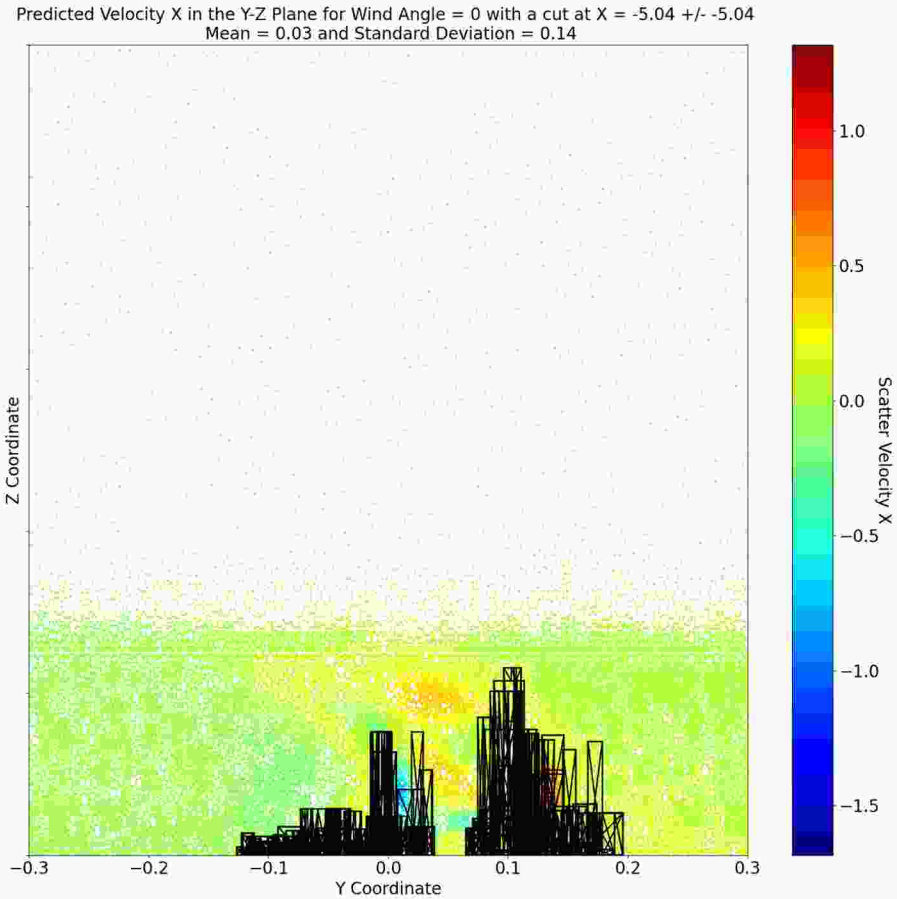
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



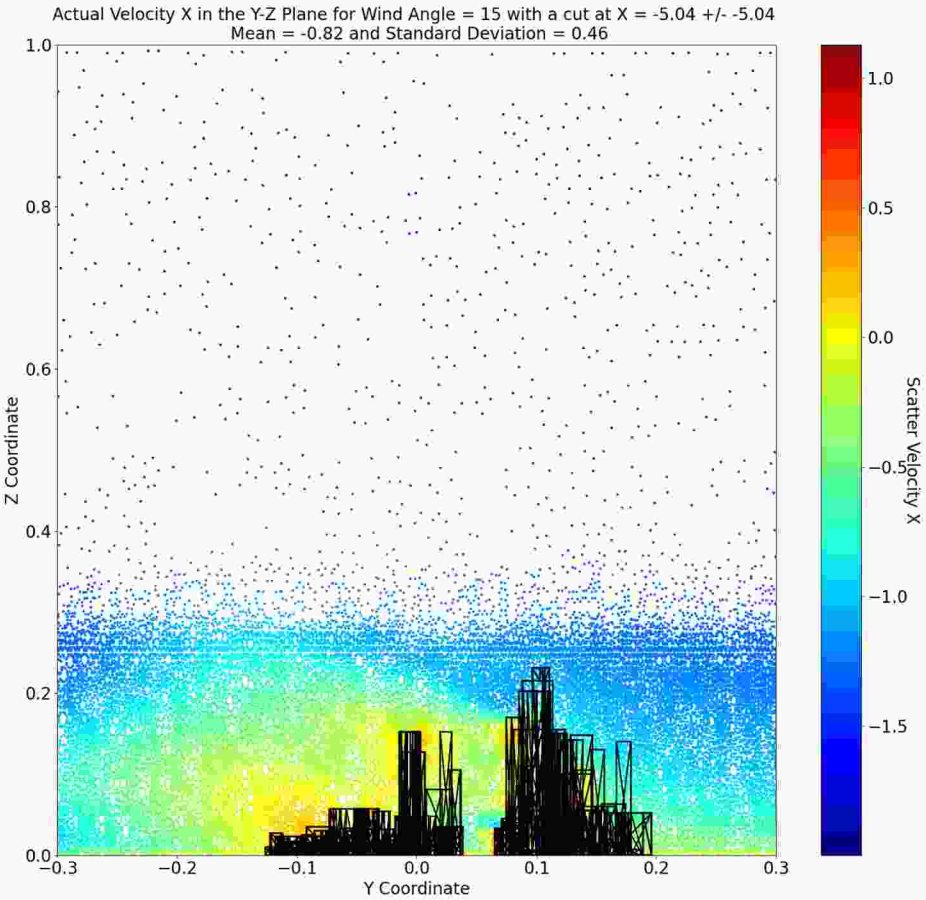


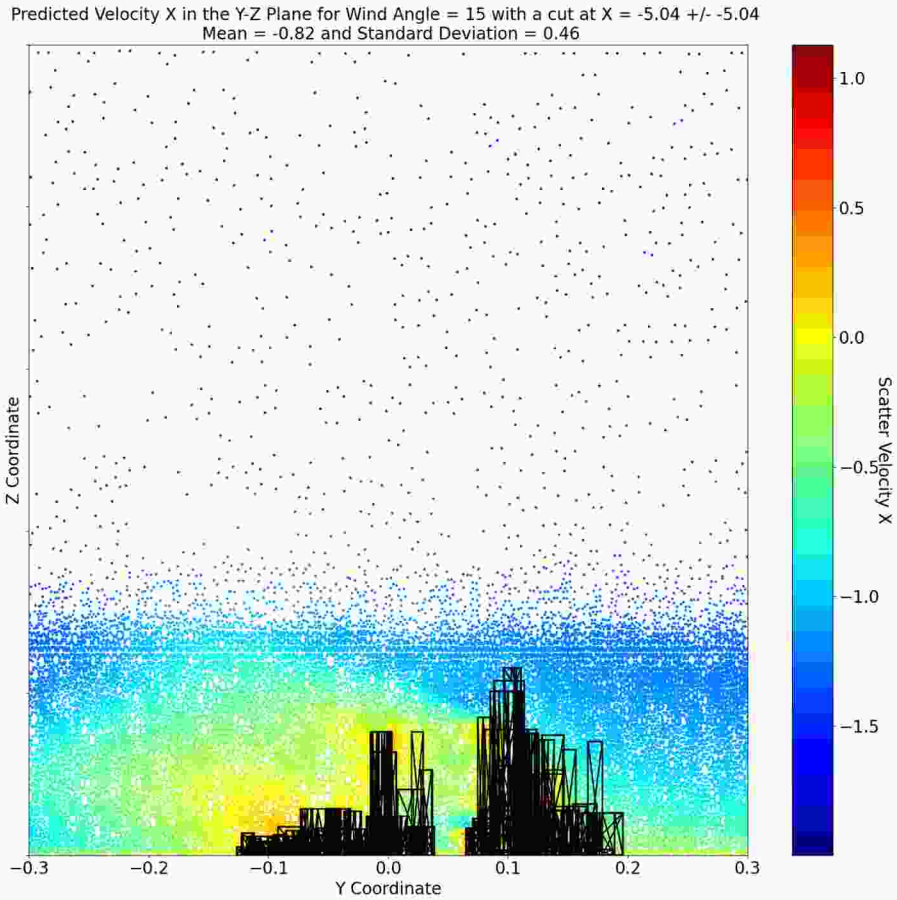
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



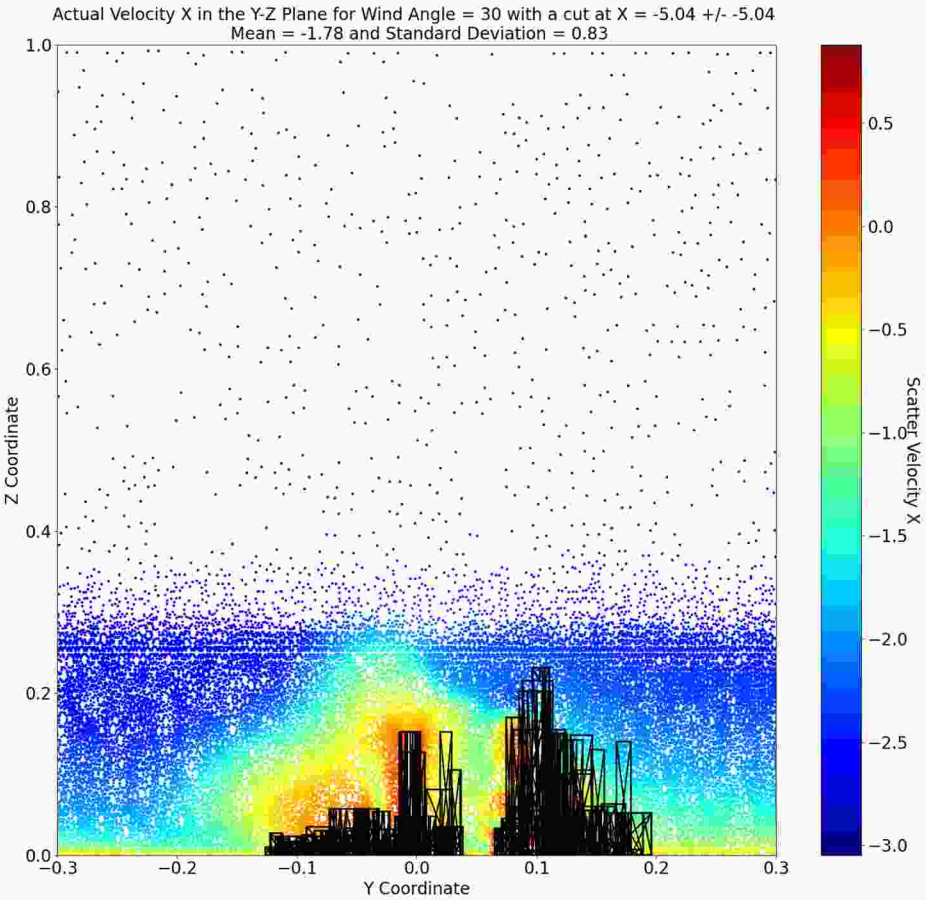


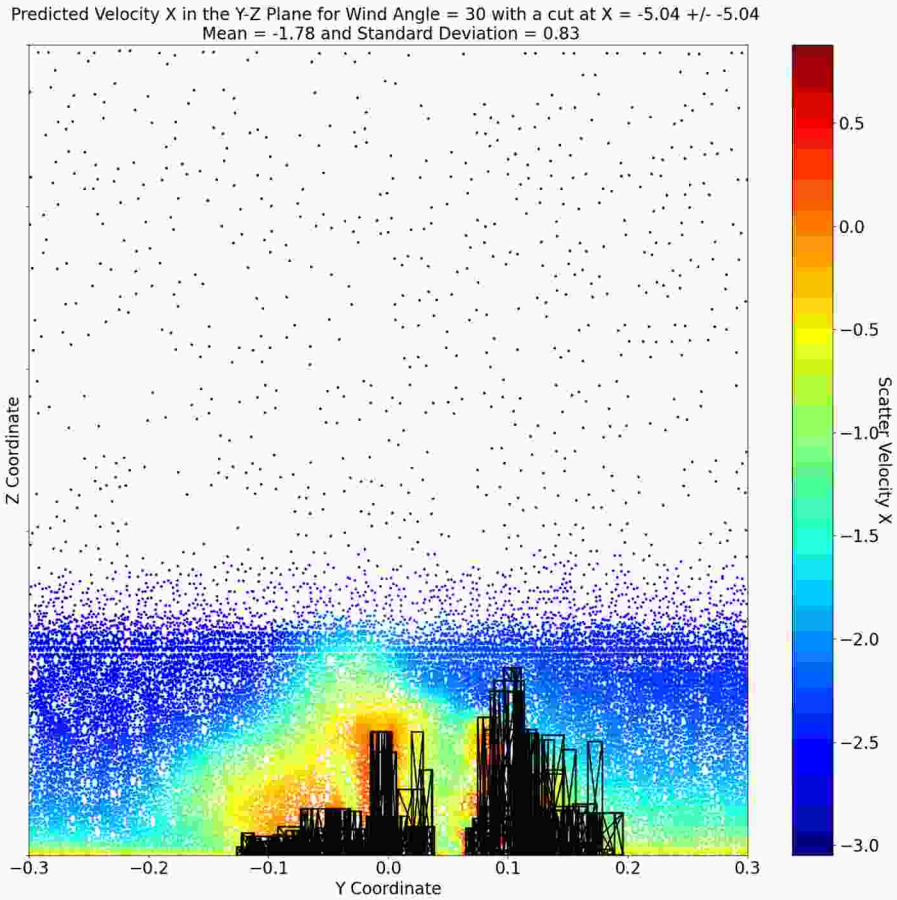
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



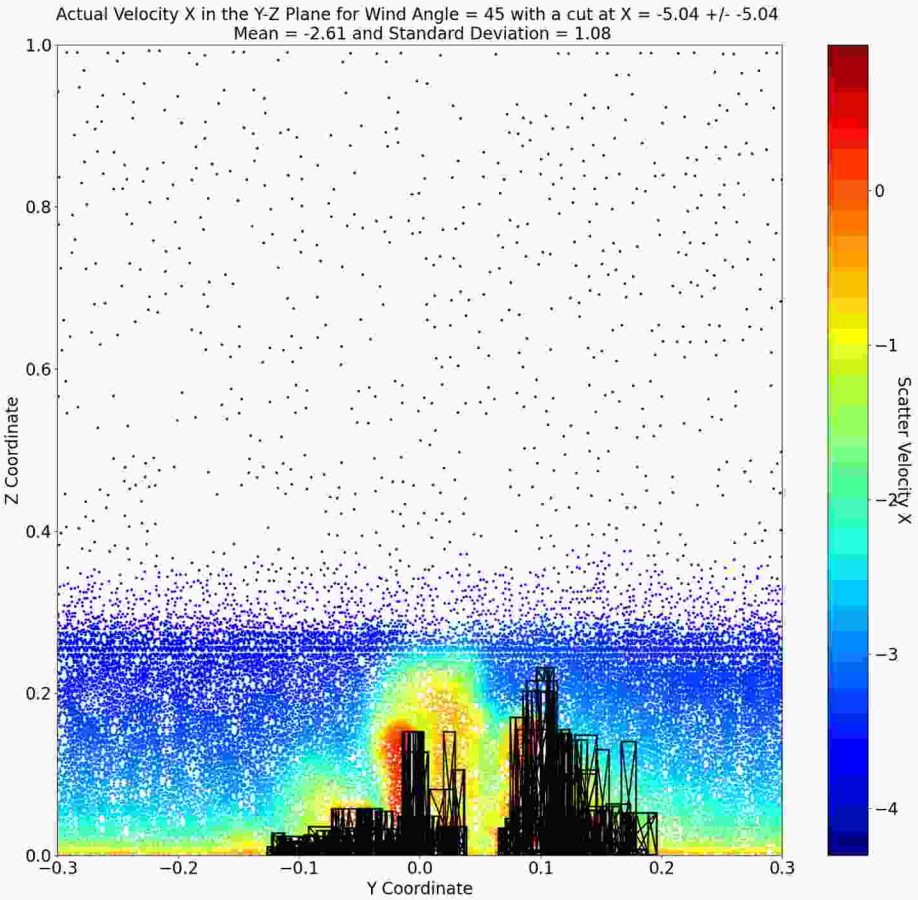


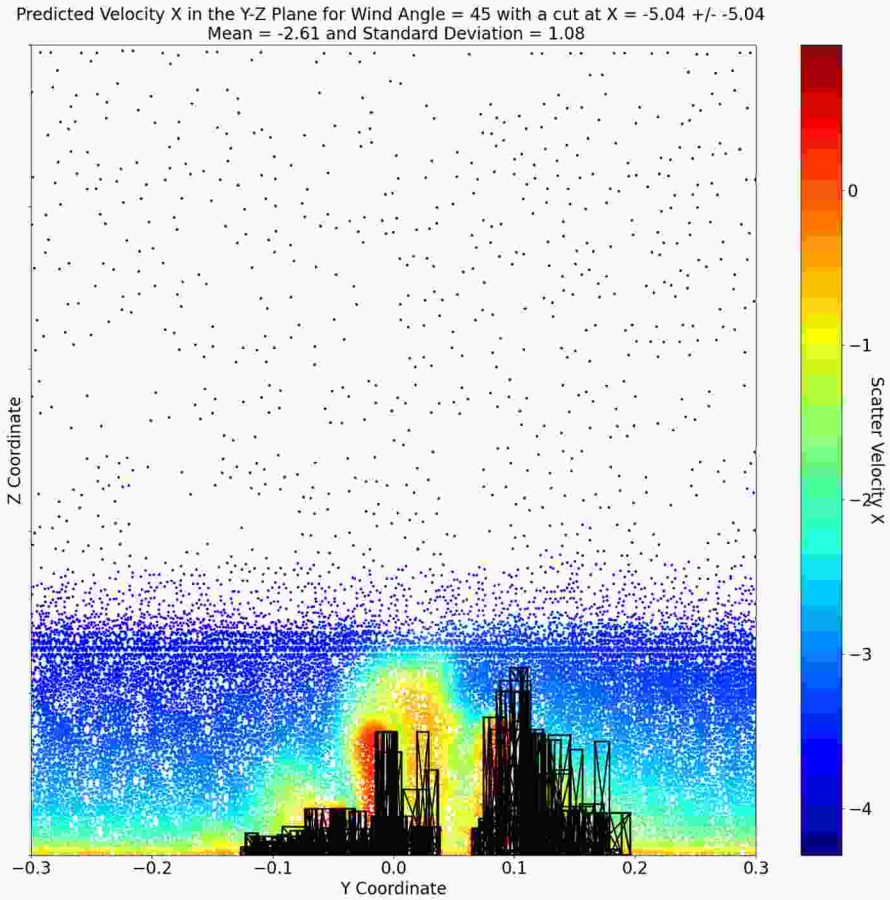
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



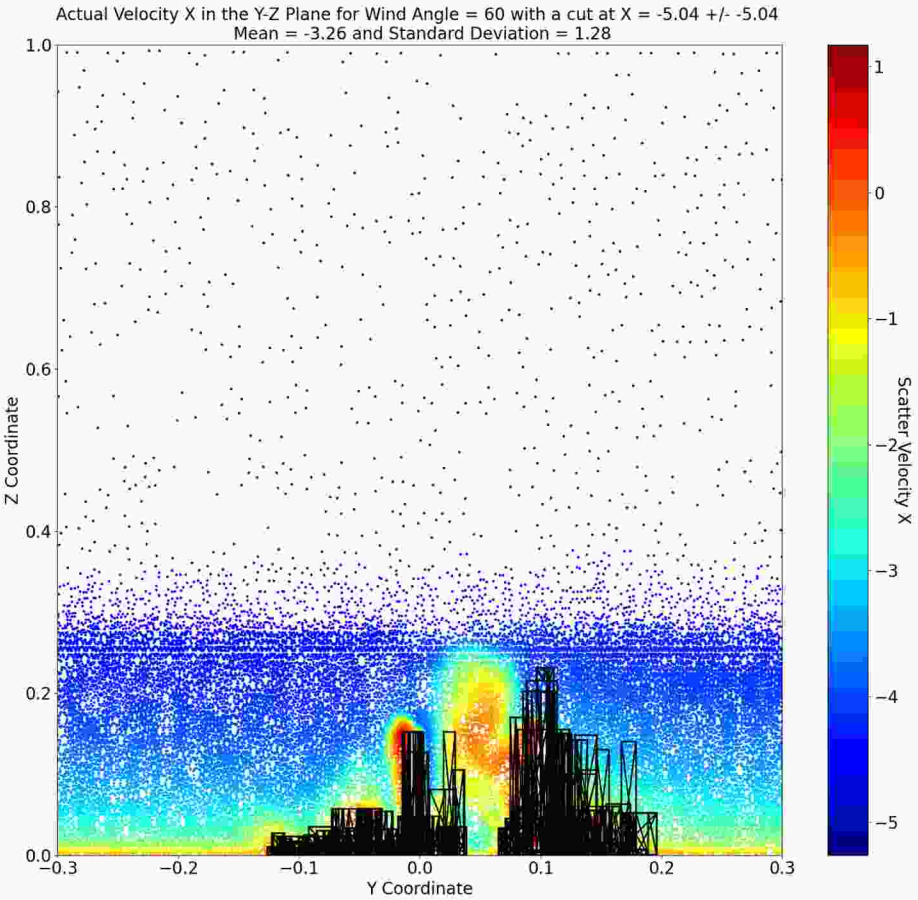


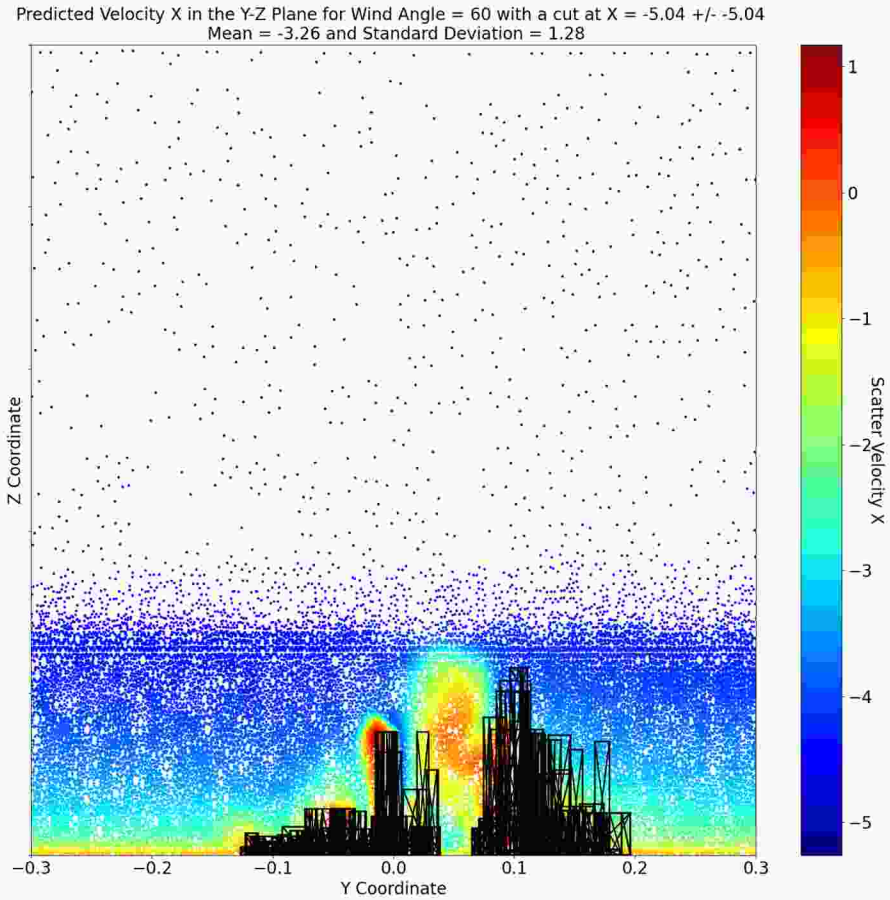
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



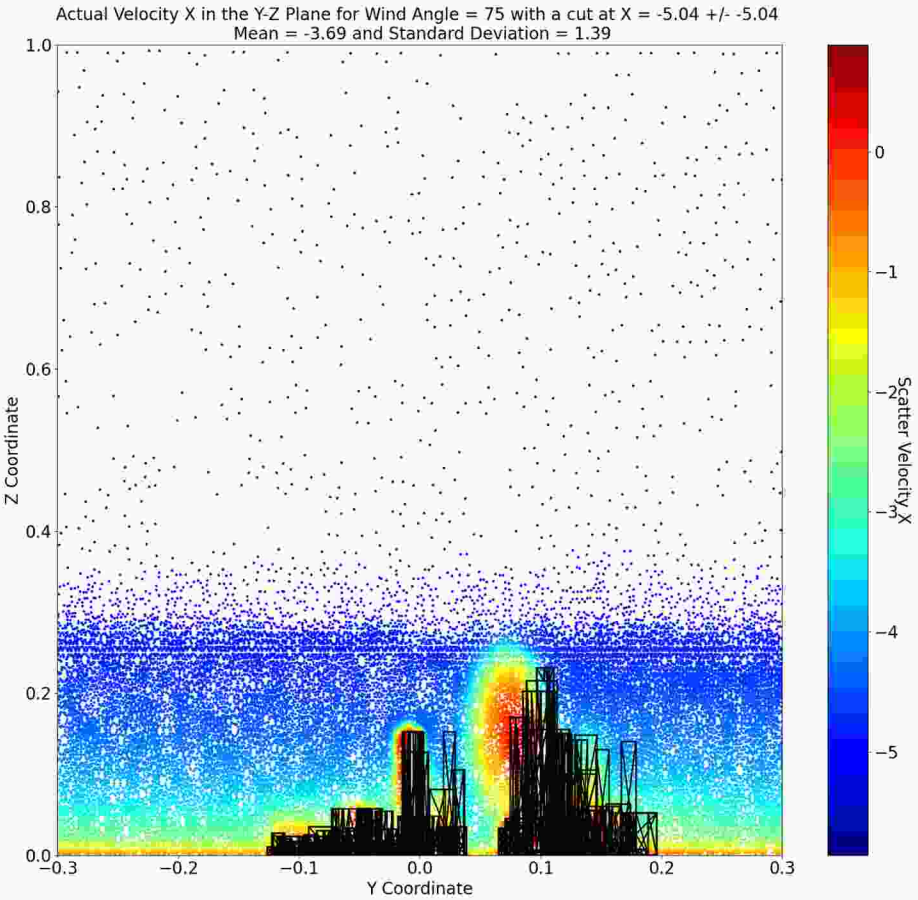


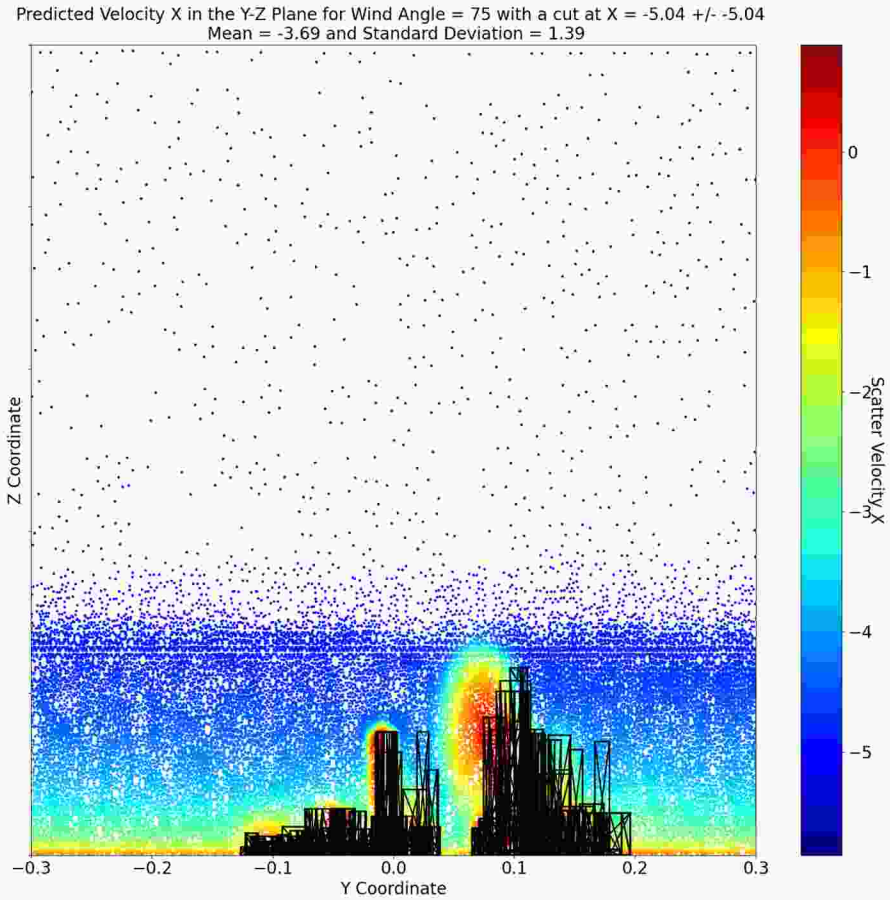
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



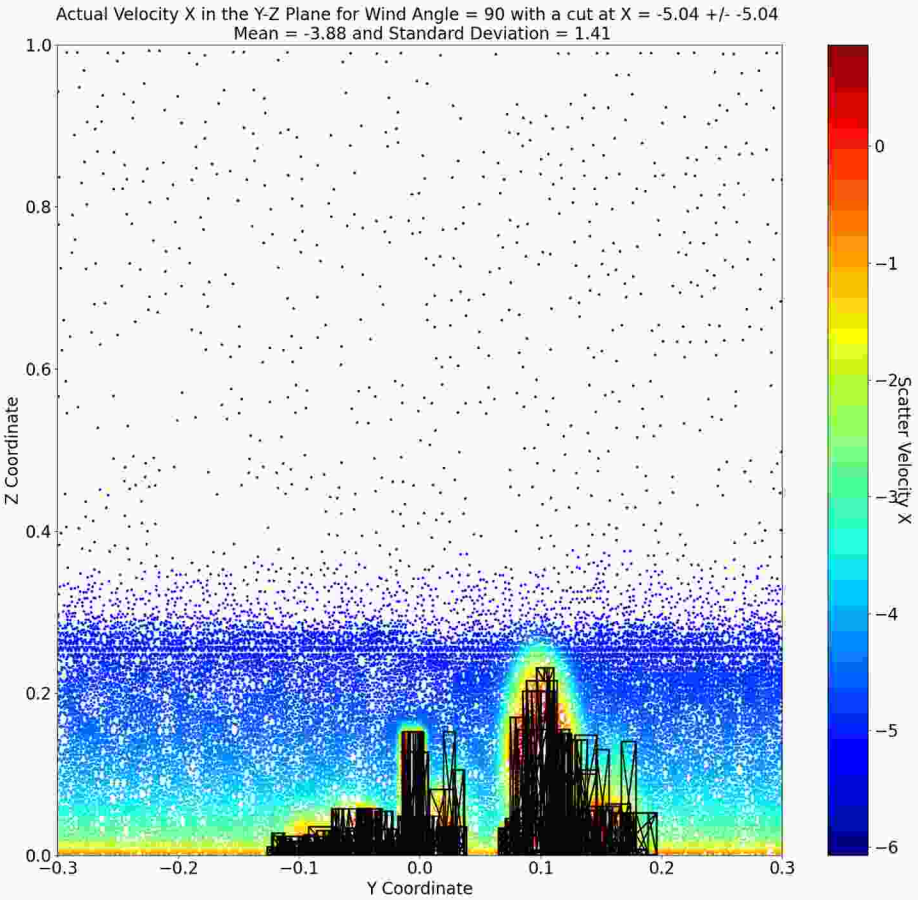


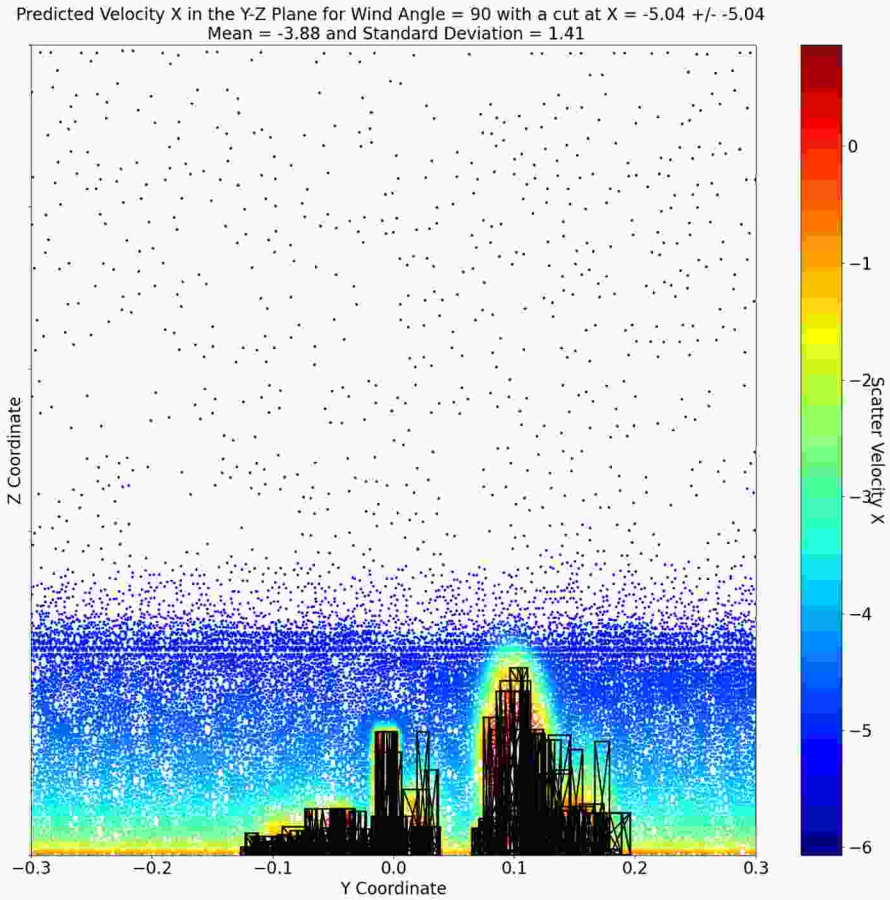
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



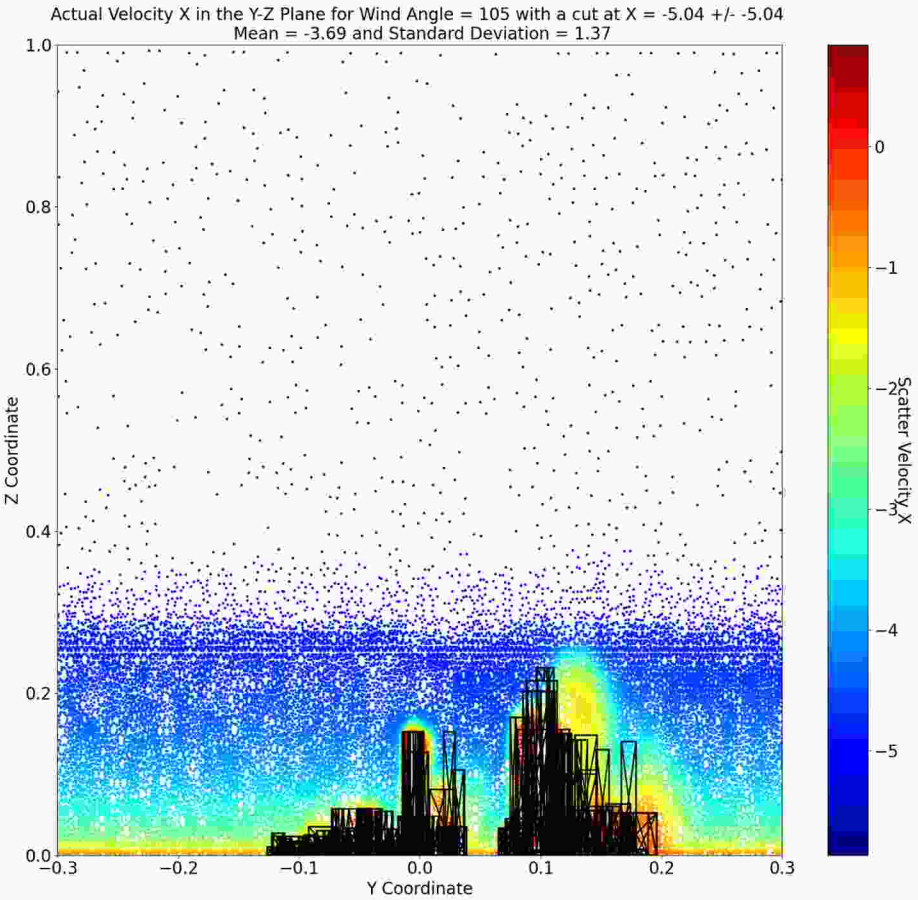


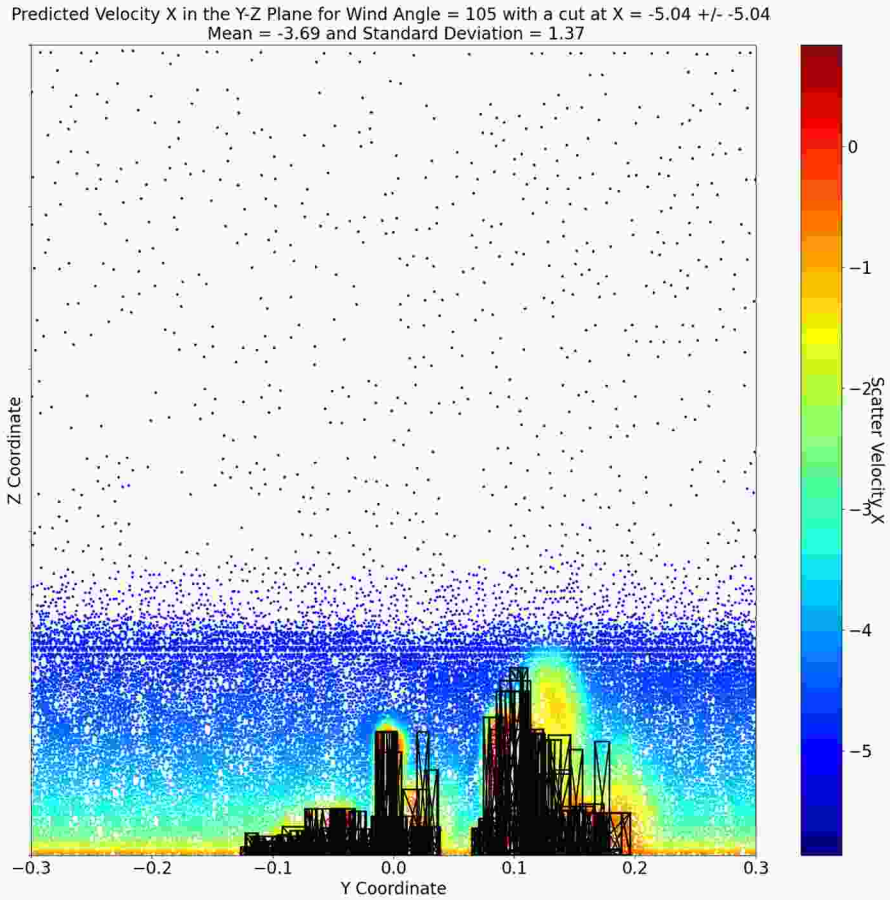
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



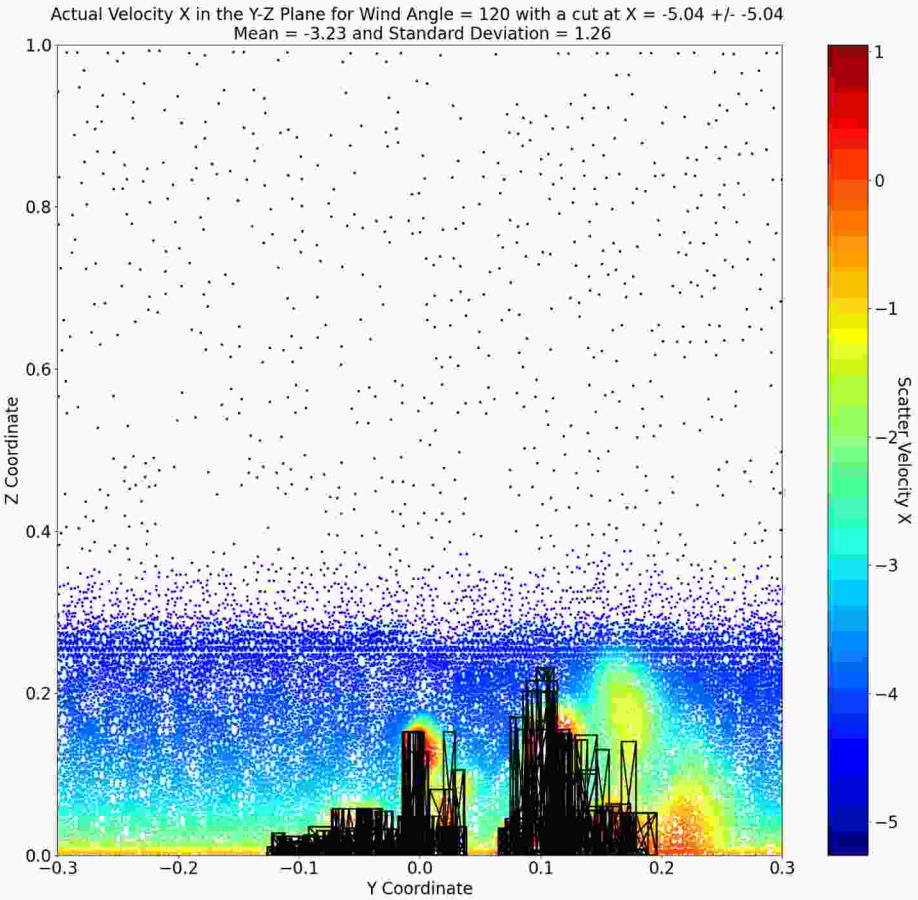


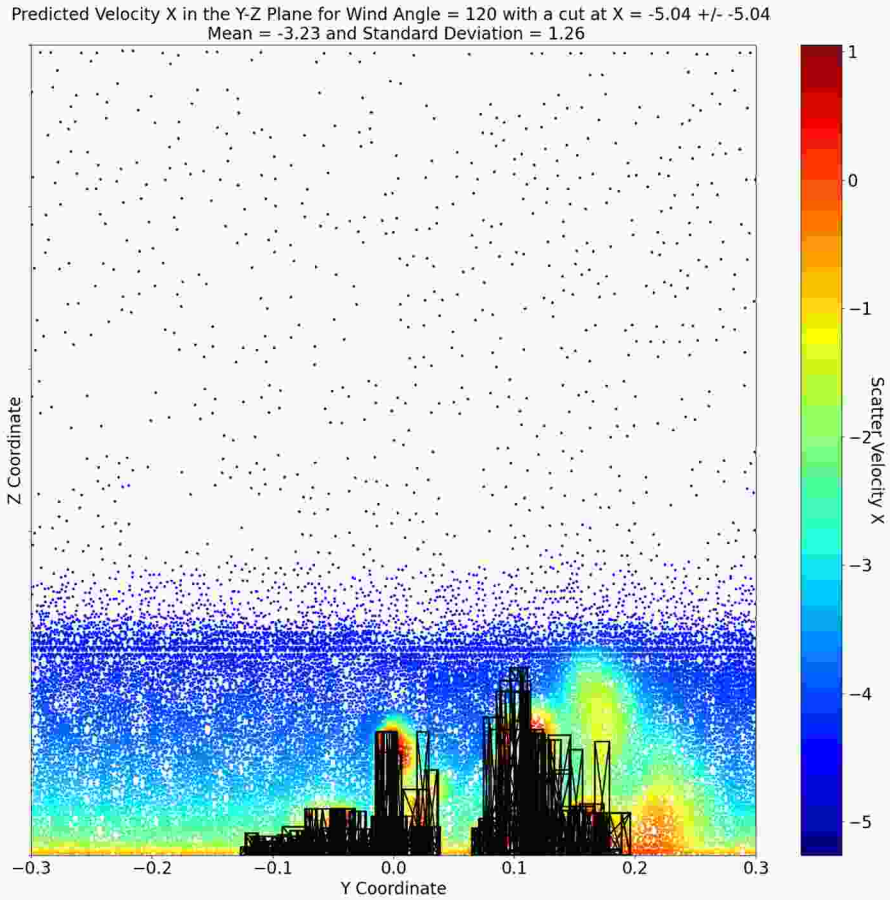
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



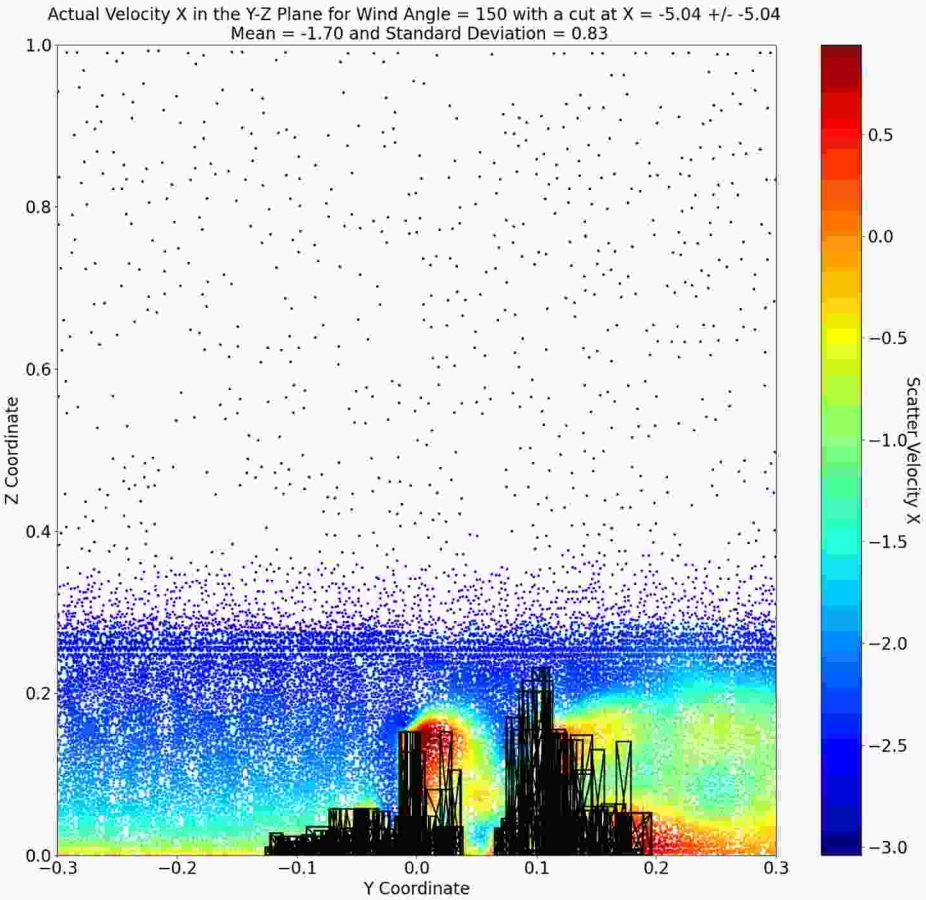


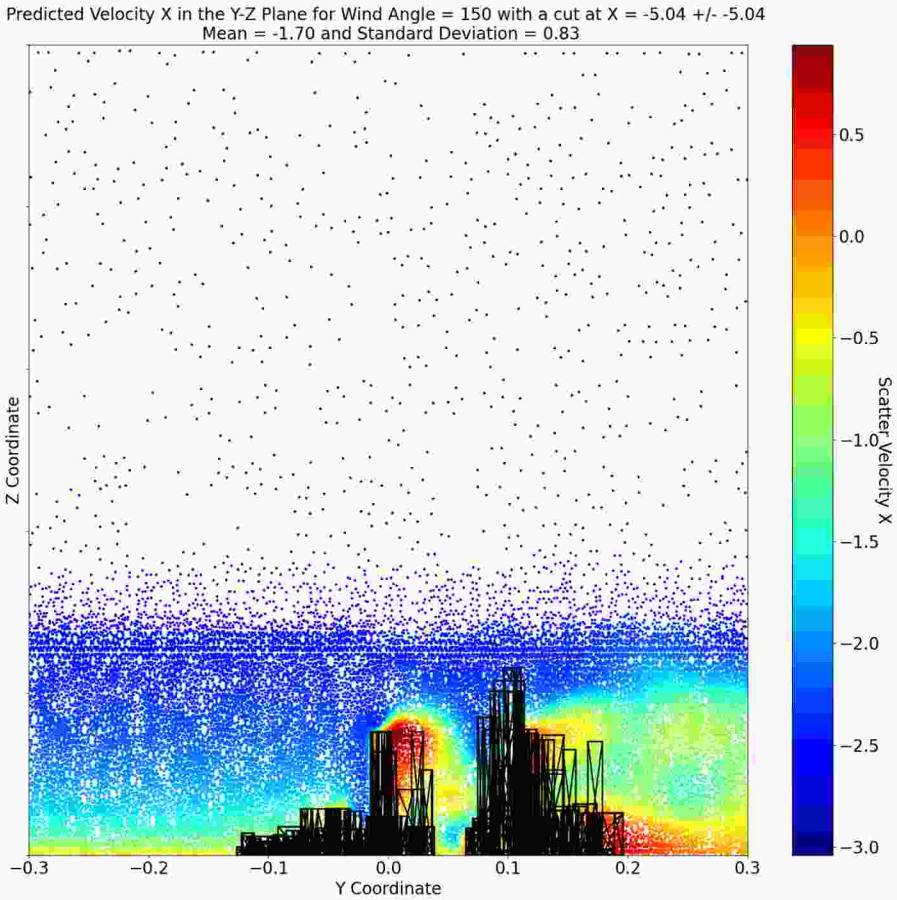
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



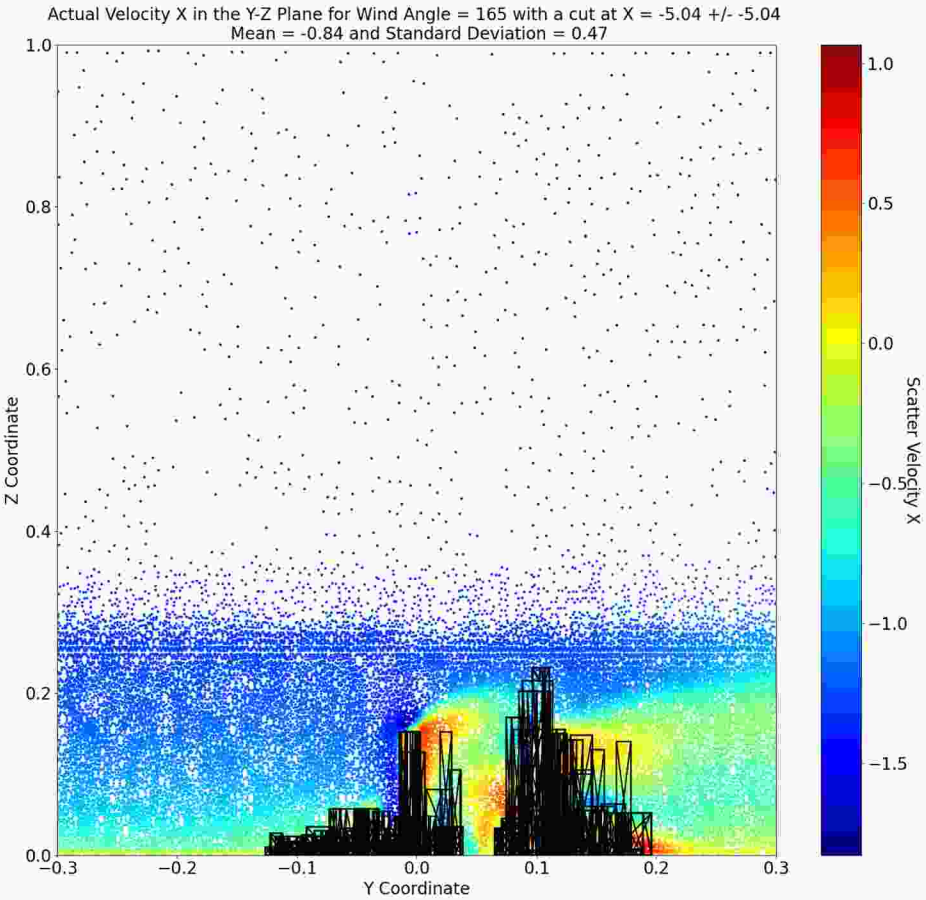


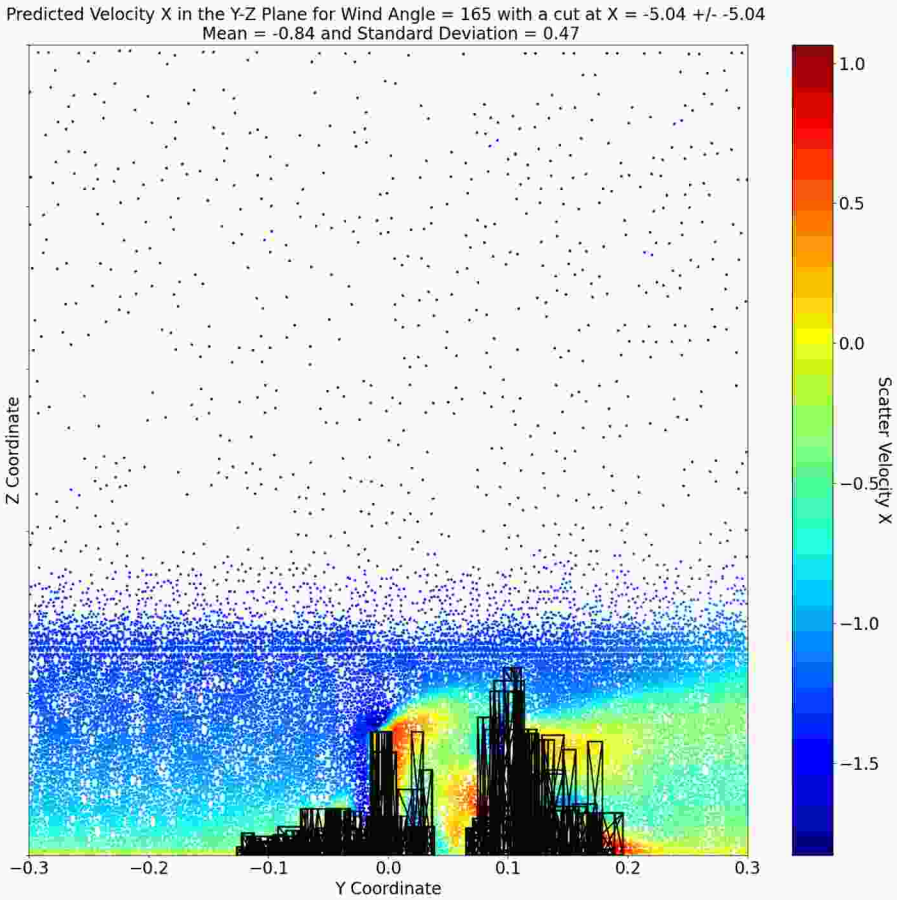
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



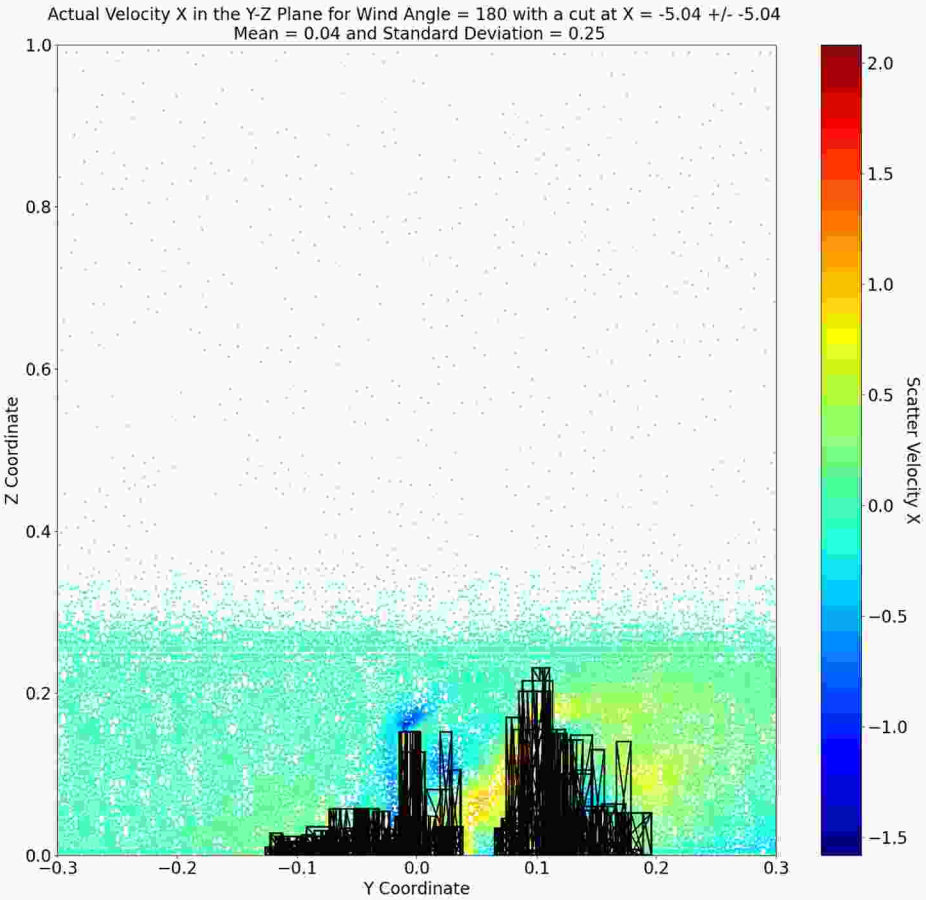


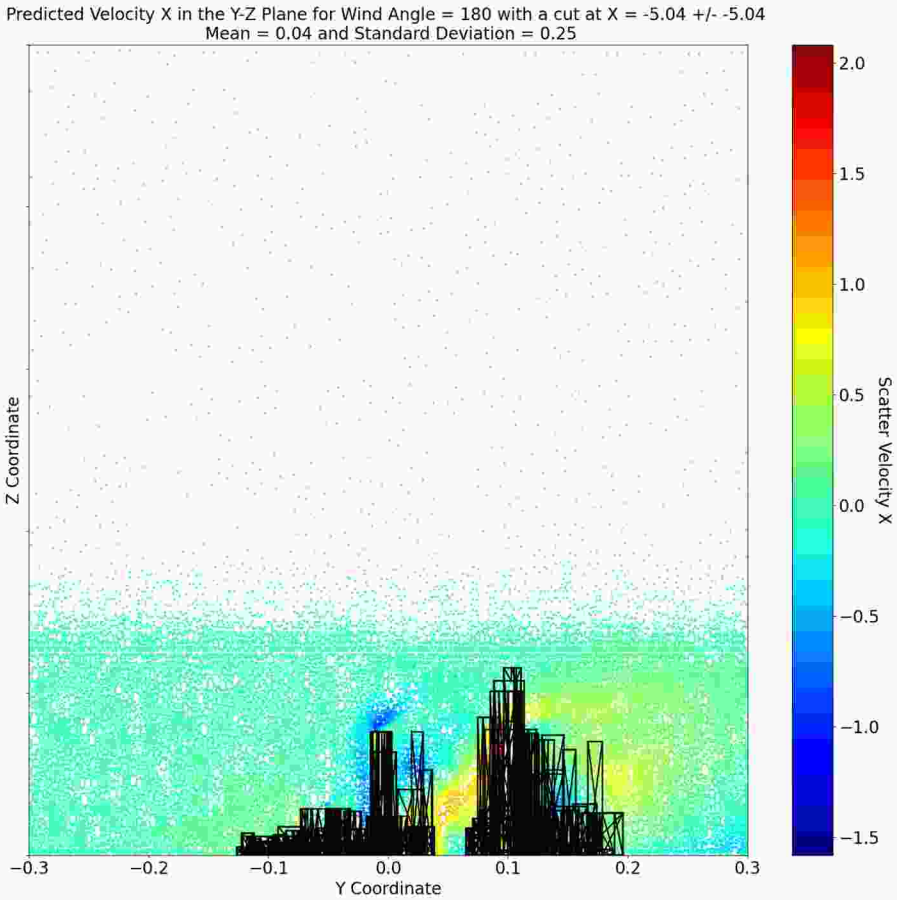
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

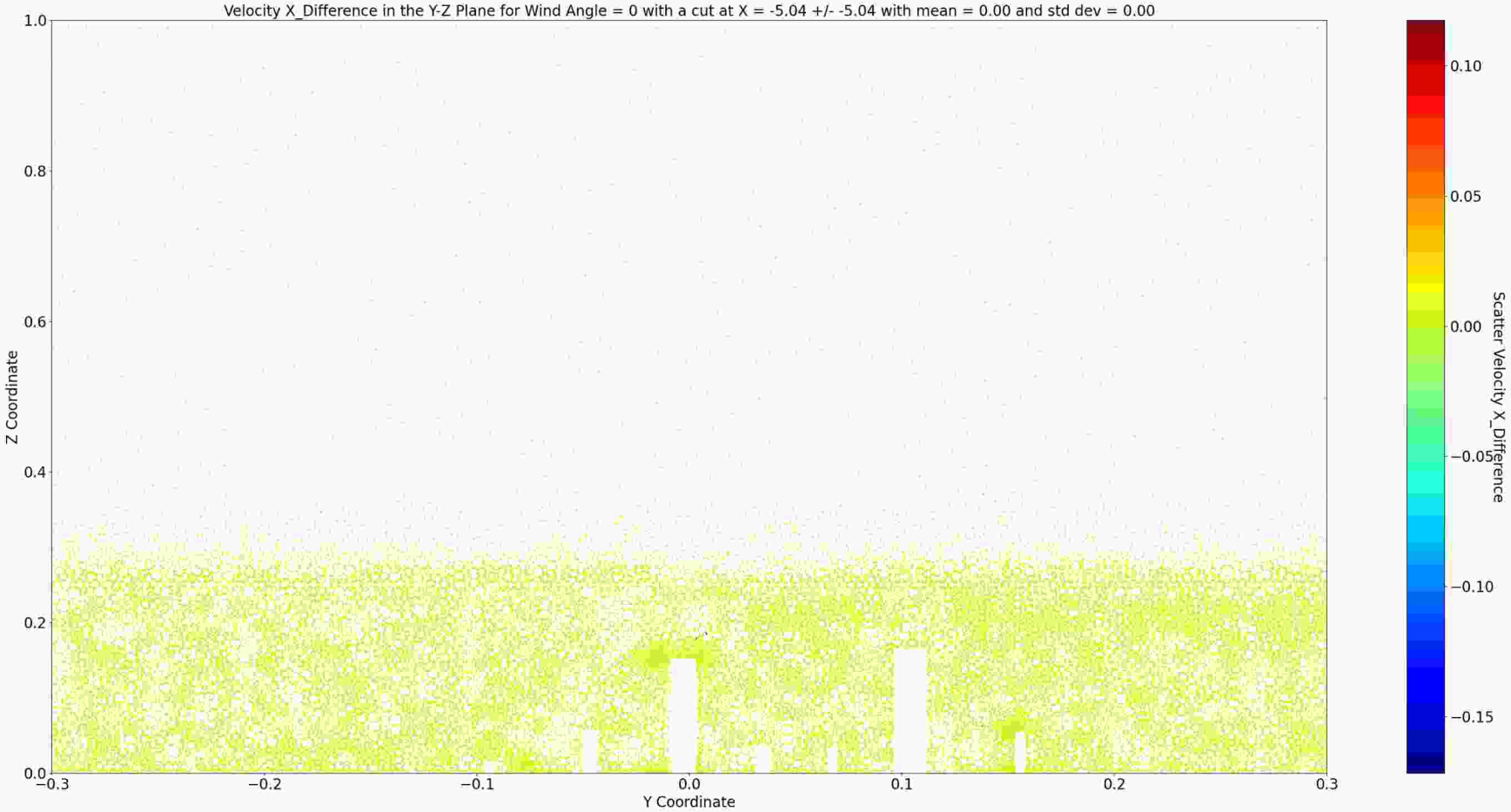


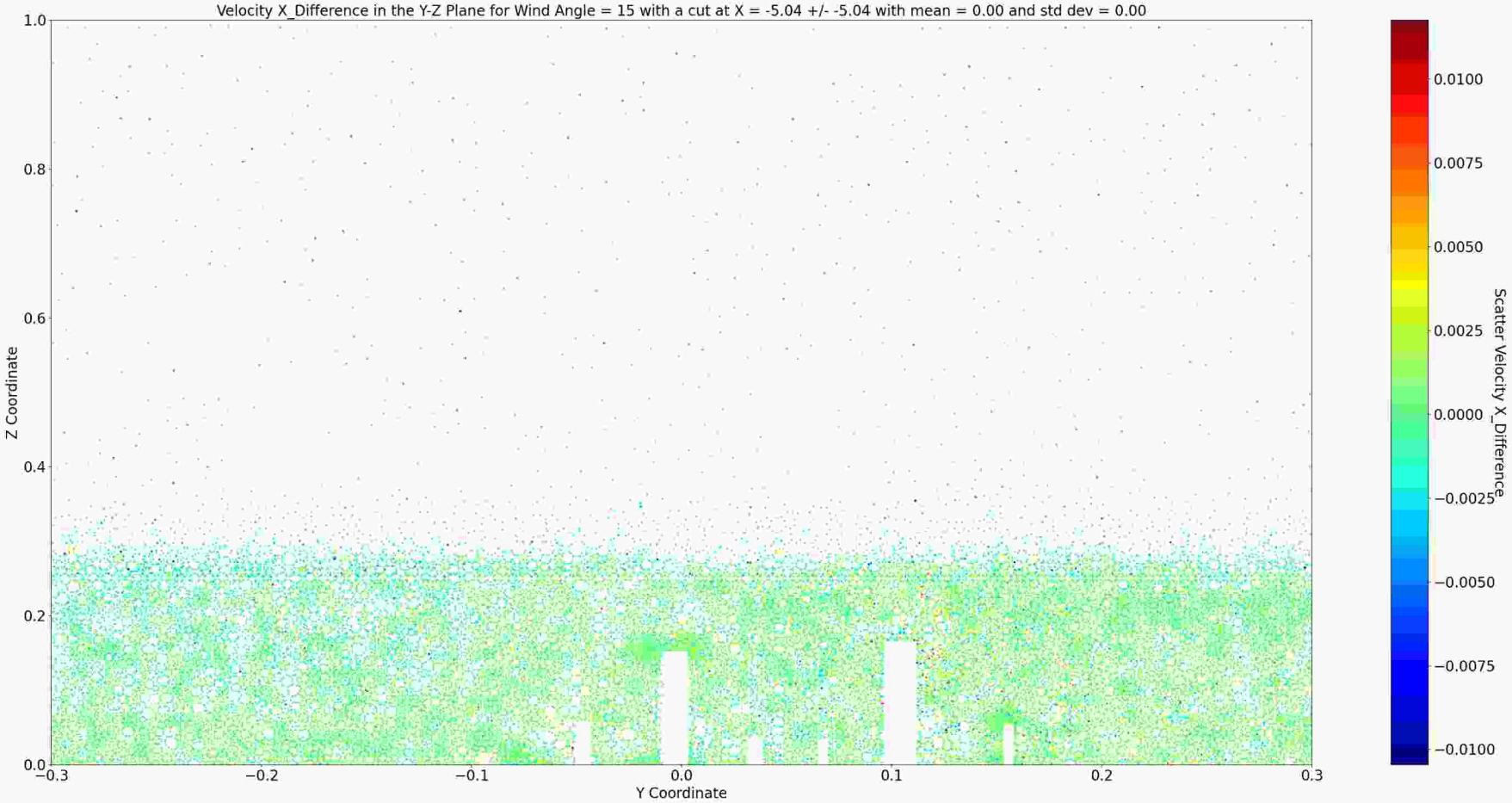


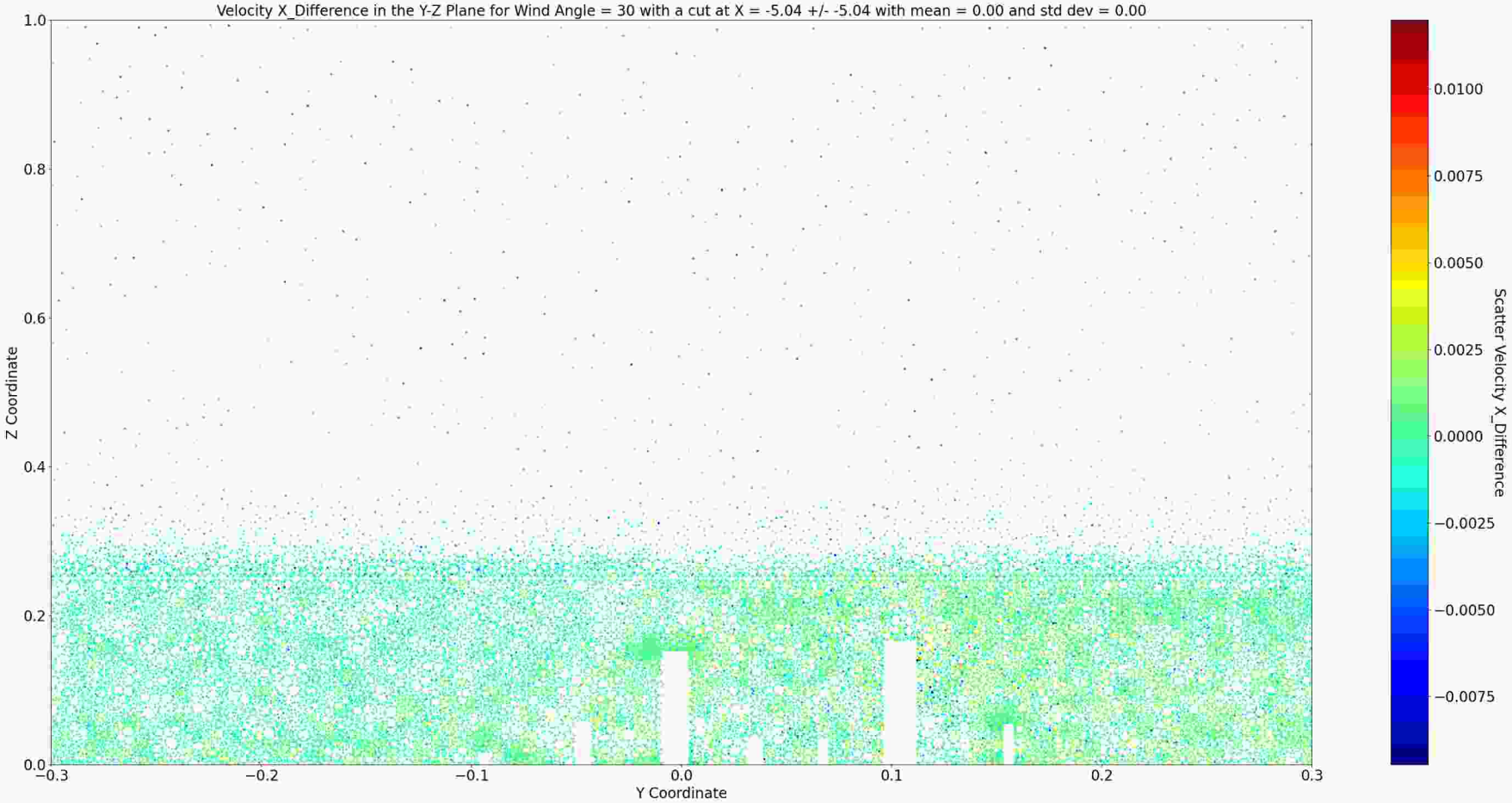
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

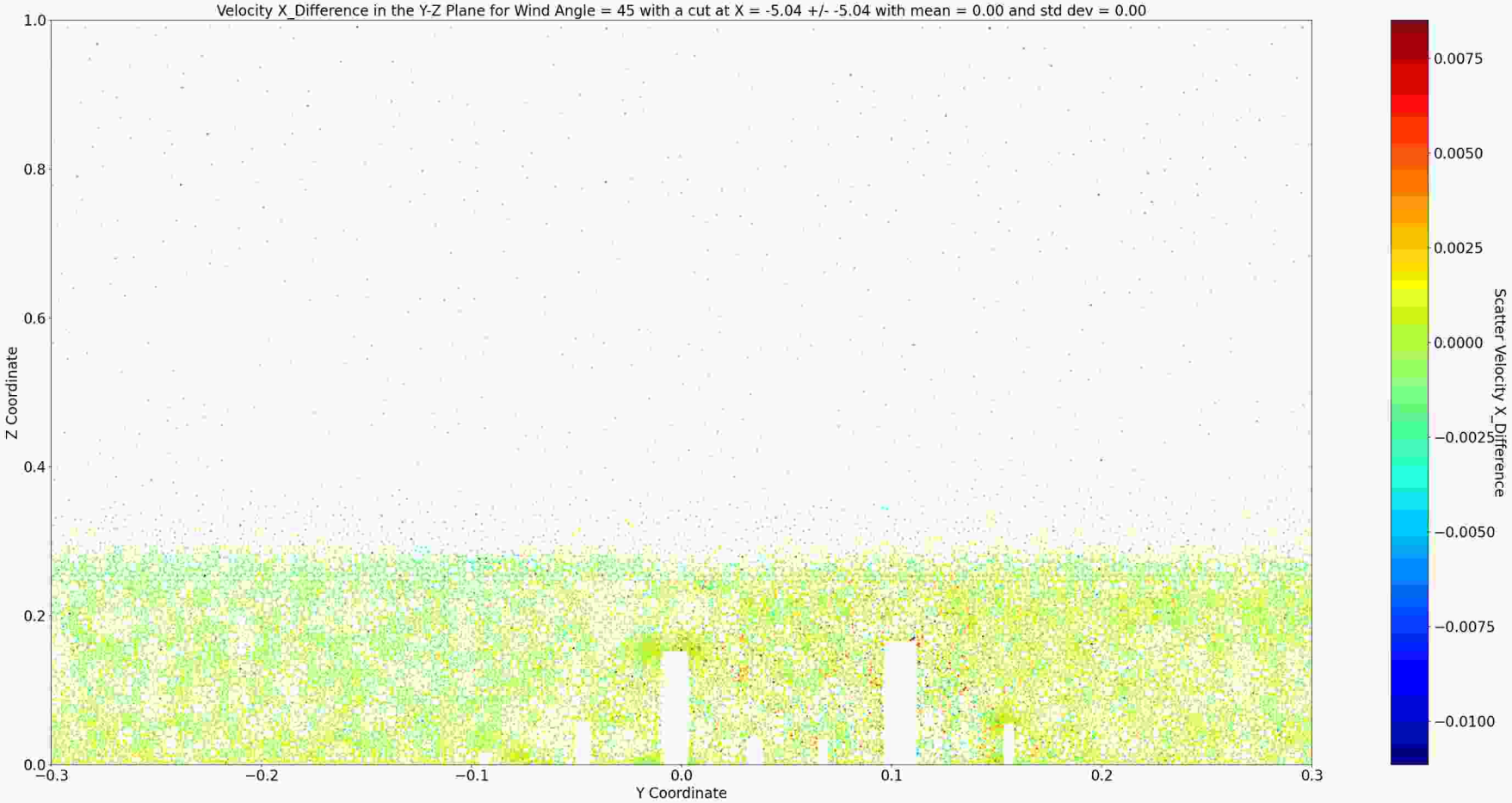


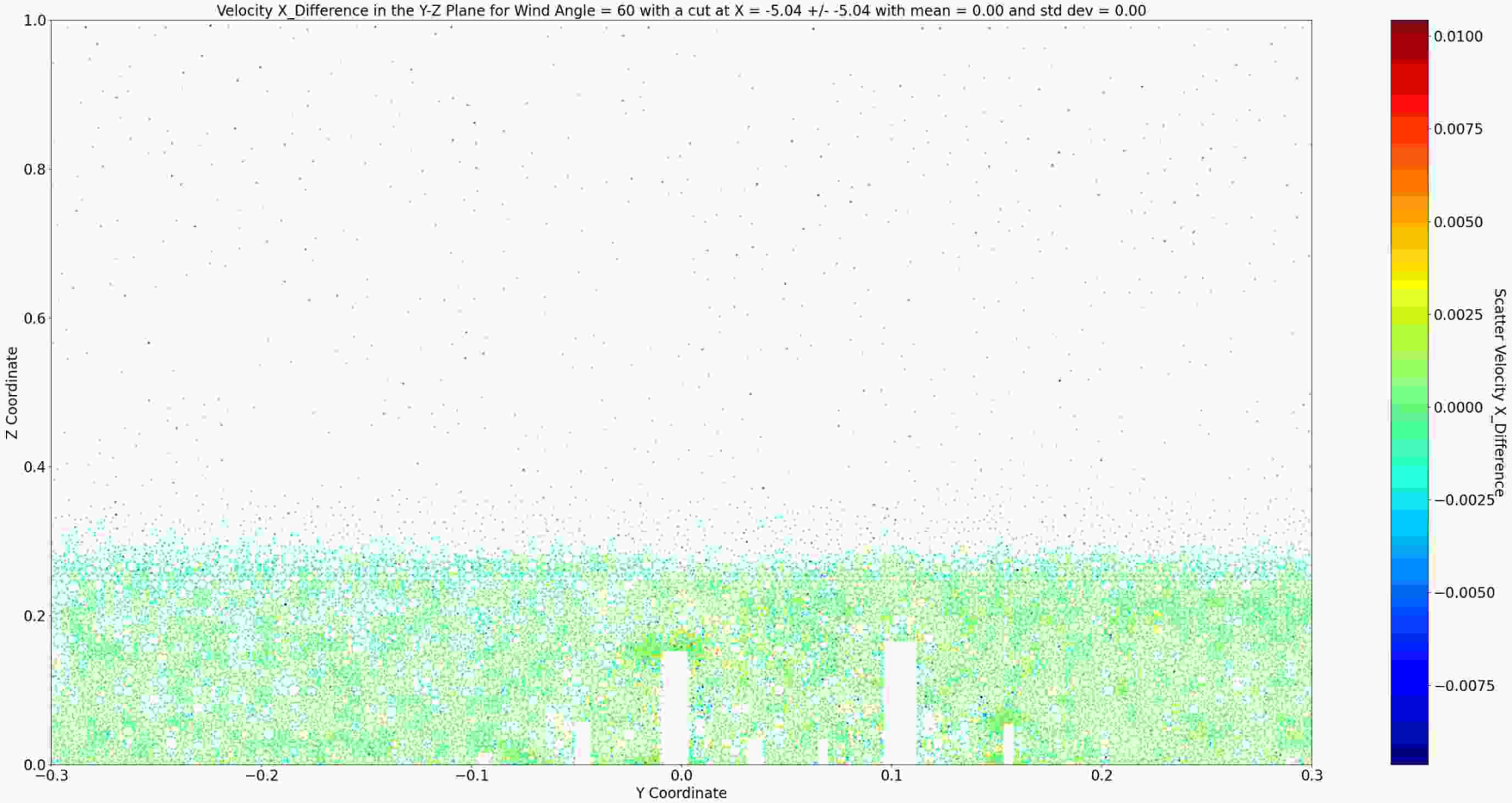


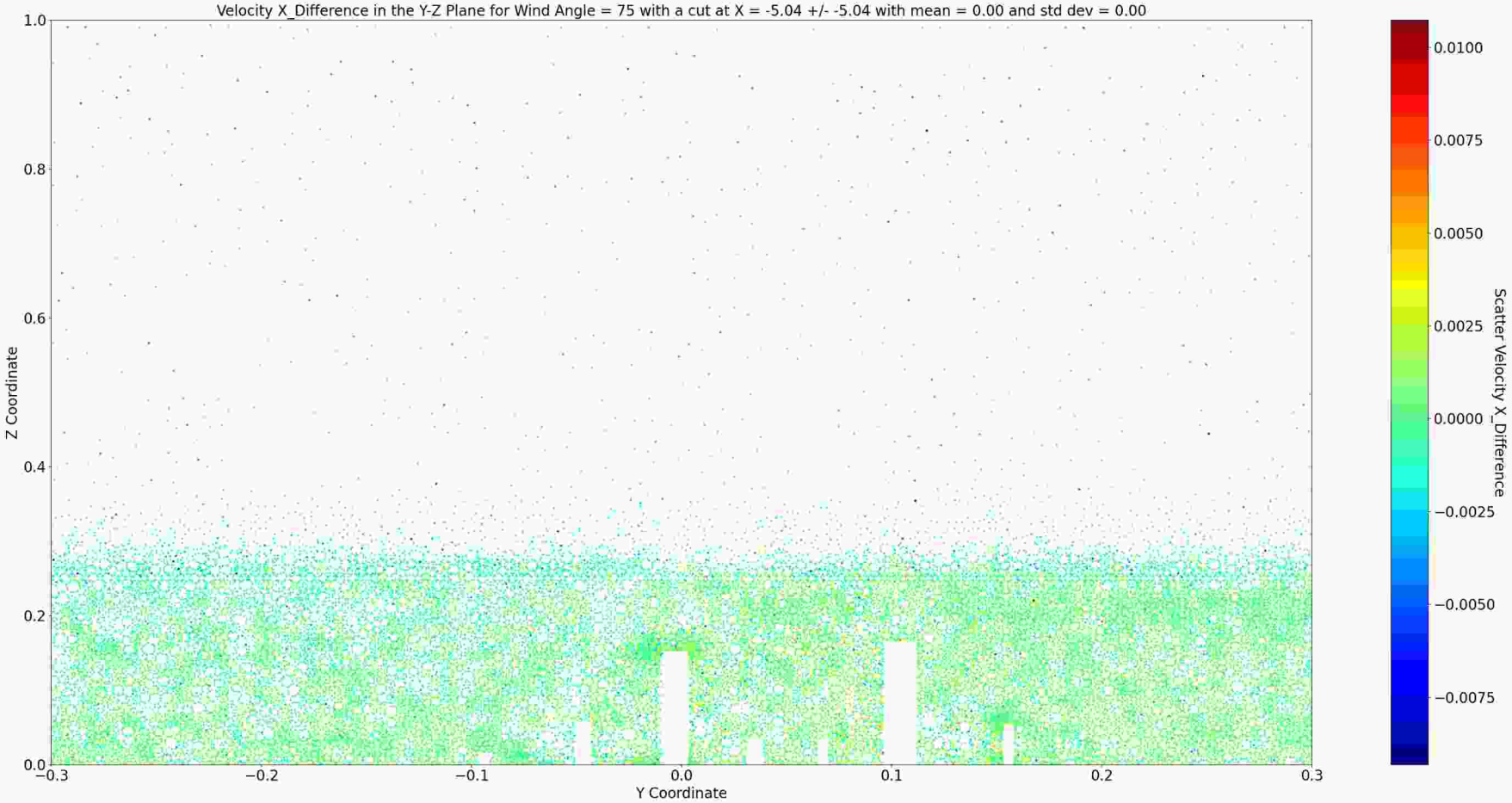

Velocity X_Difference in the Y-Z Plane for Wind Angle = 0 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.10
0.05
0.00
−0.05
−0.10
−0.15

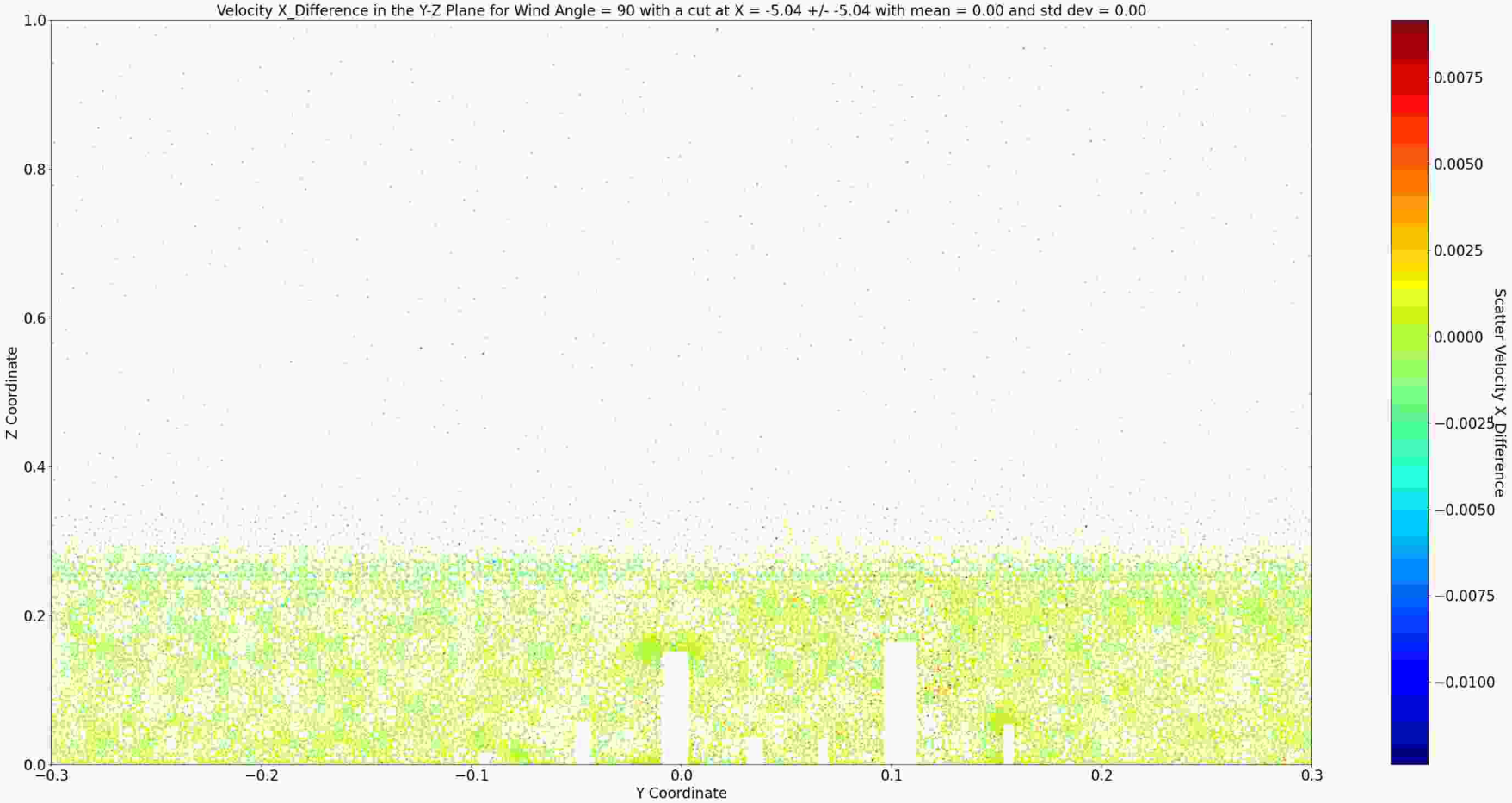

Velocity X_Difference in the Y-Z Plane for Wind Angle = 15 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0100
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075
−0.0100

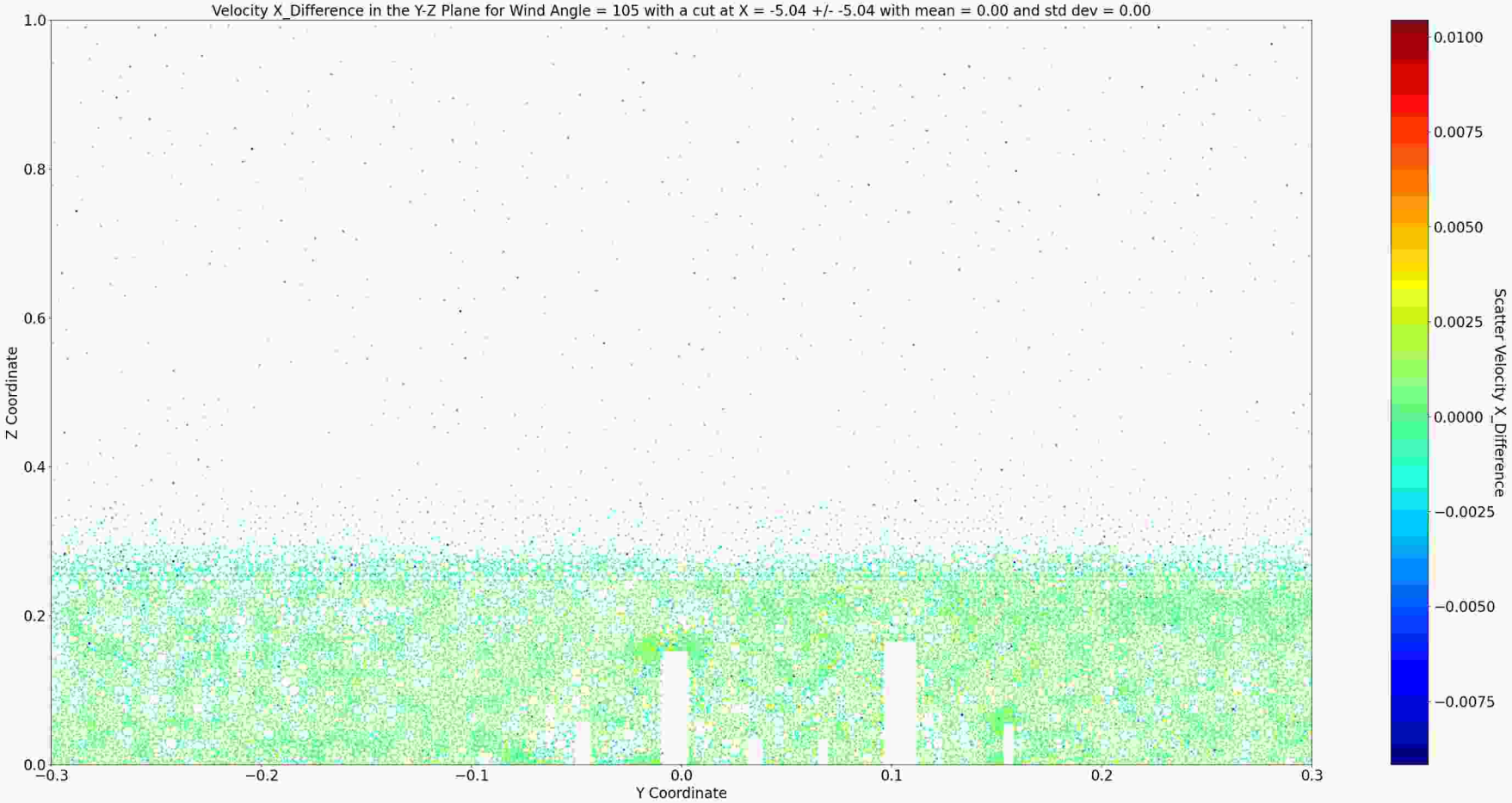

Velocity X_Difference in the Y-Z Plane for Wind Angle = 30 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0100
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075

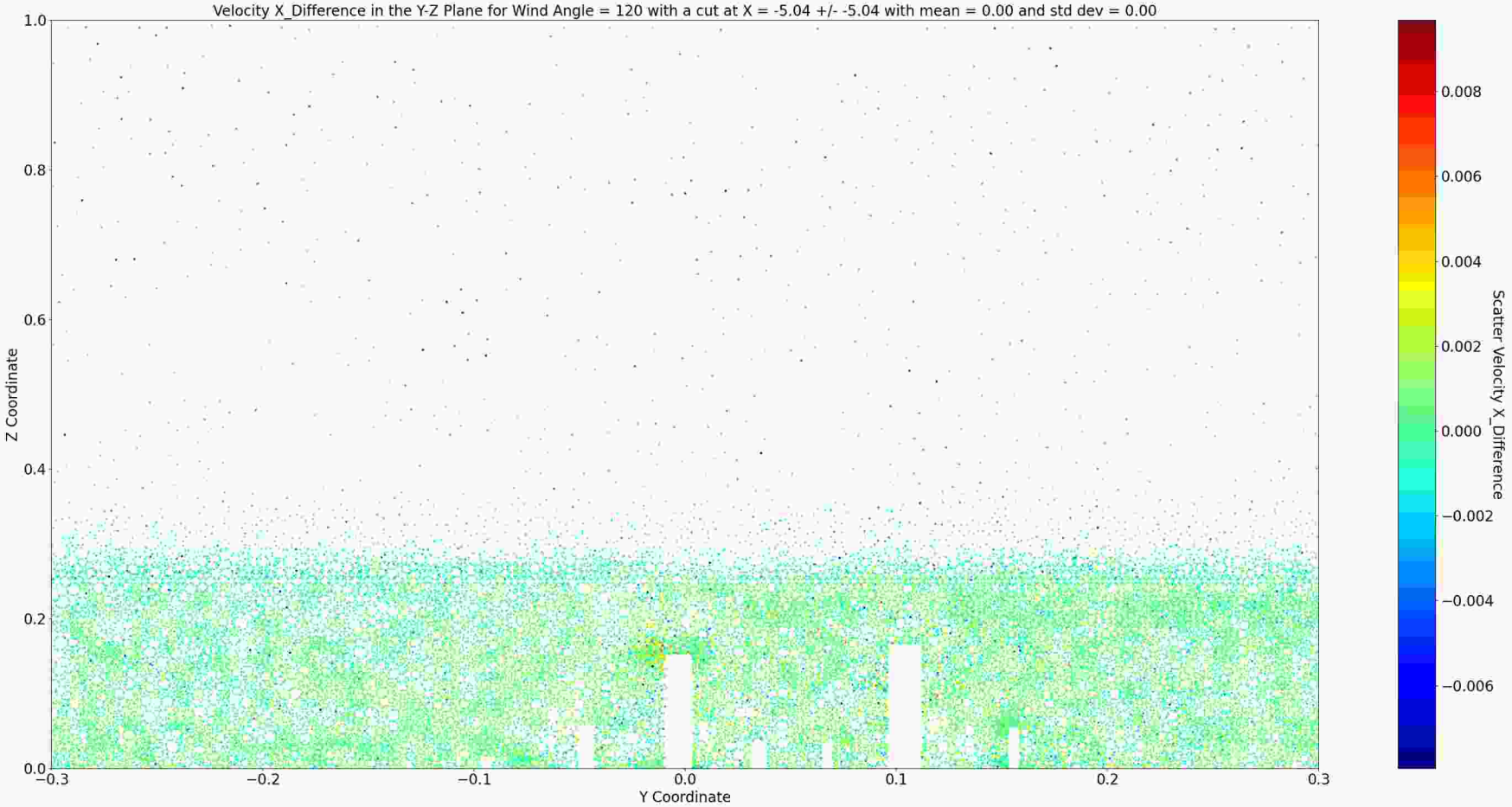

Velocity X_Difference in the Y-Z Plane for Wind Angle = 45 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075
−0.0100

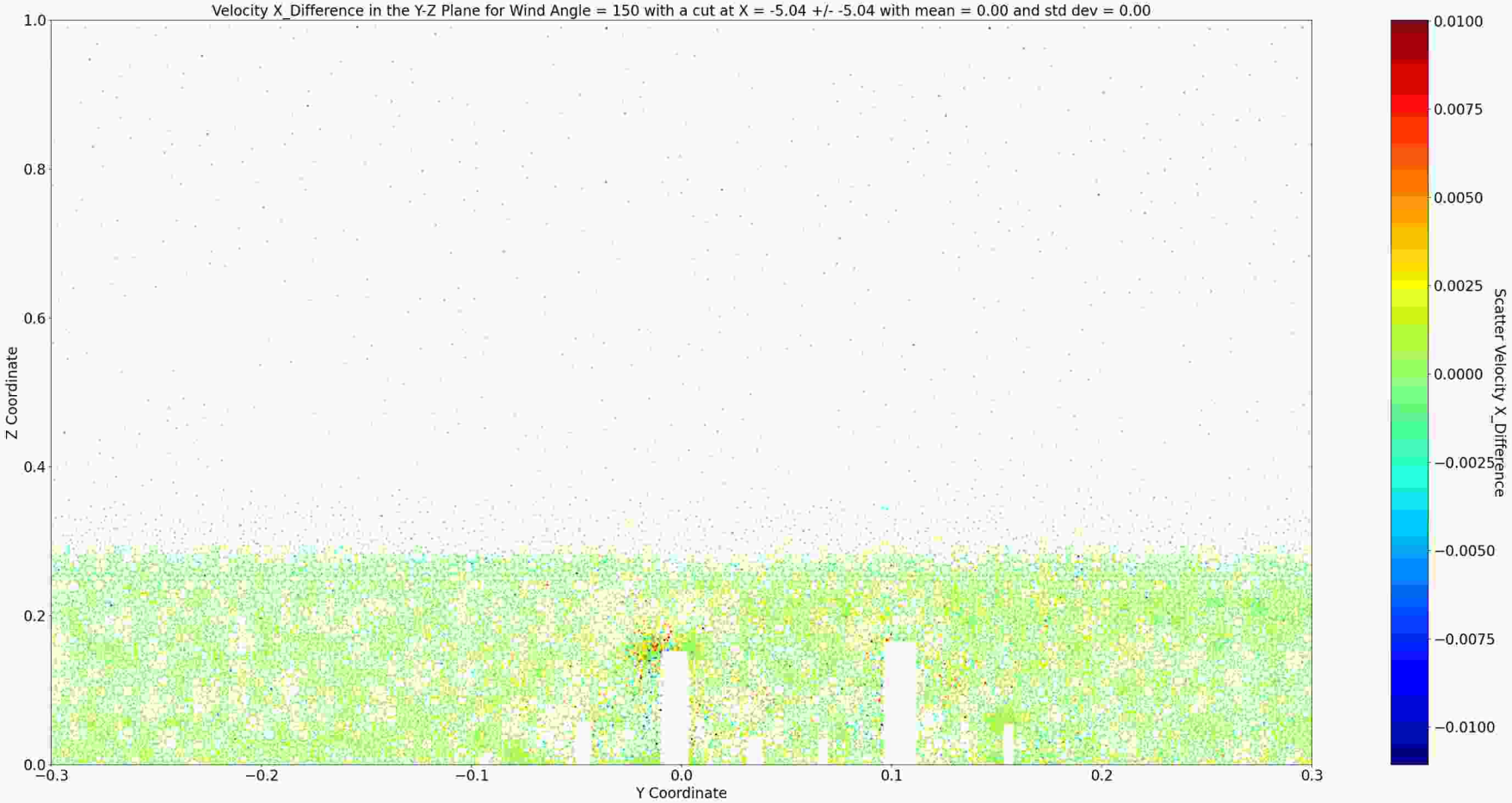

Velocity X_Difference in the Y-Z Plane for Wind Angle = 60 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0100
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075

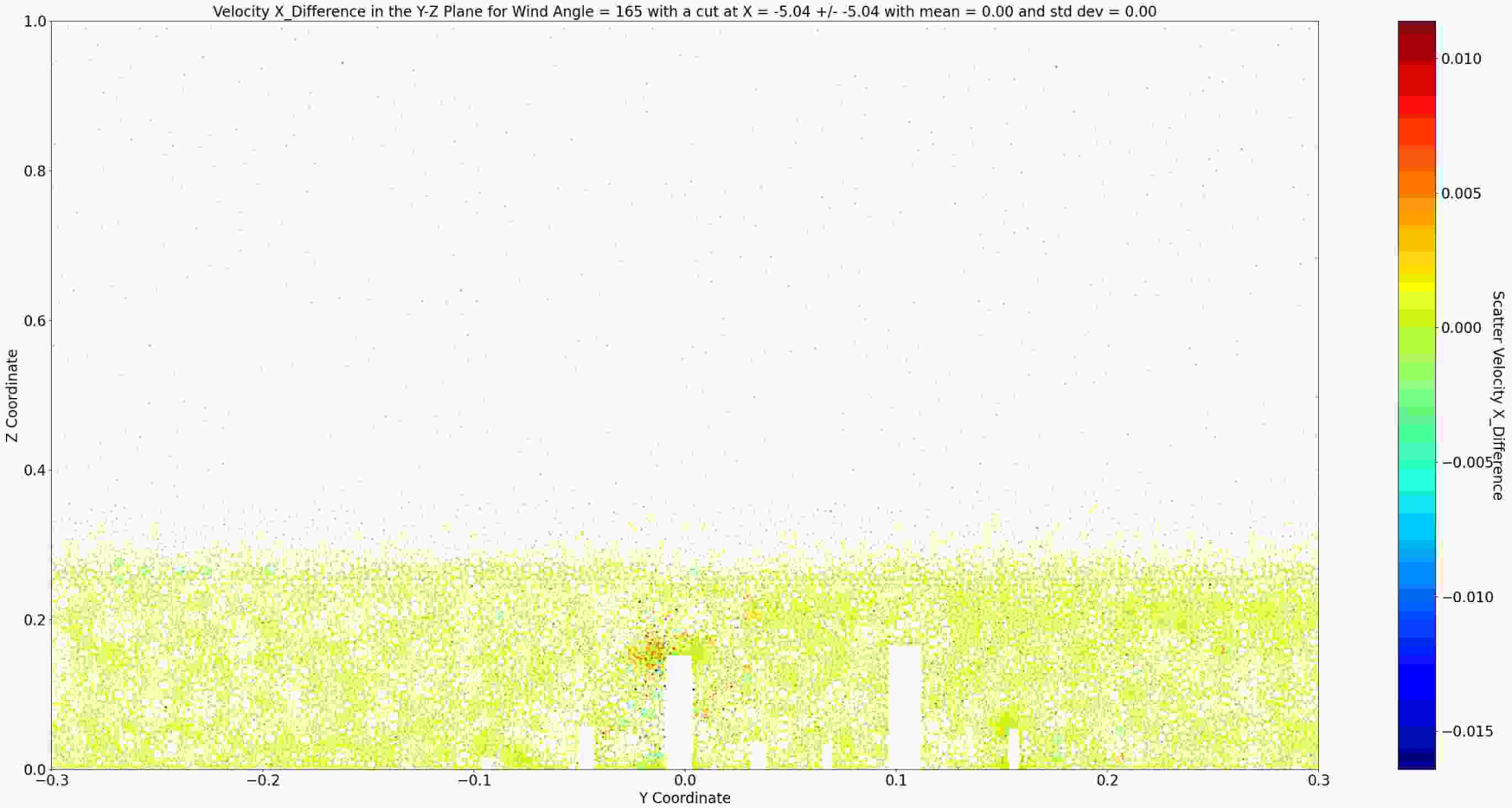

Velocity X_Difference in the Y-Z Plane for Wind Angle = 75 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0100
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075

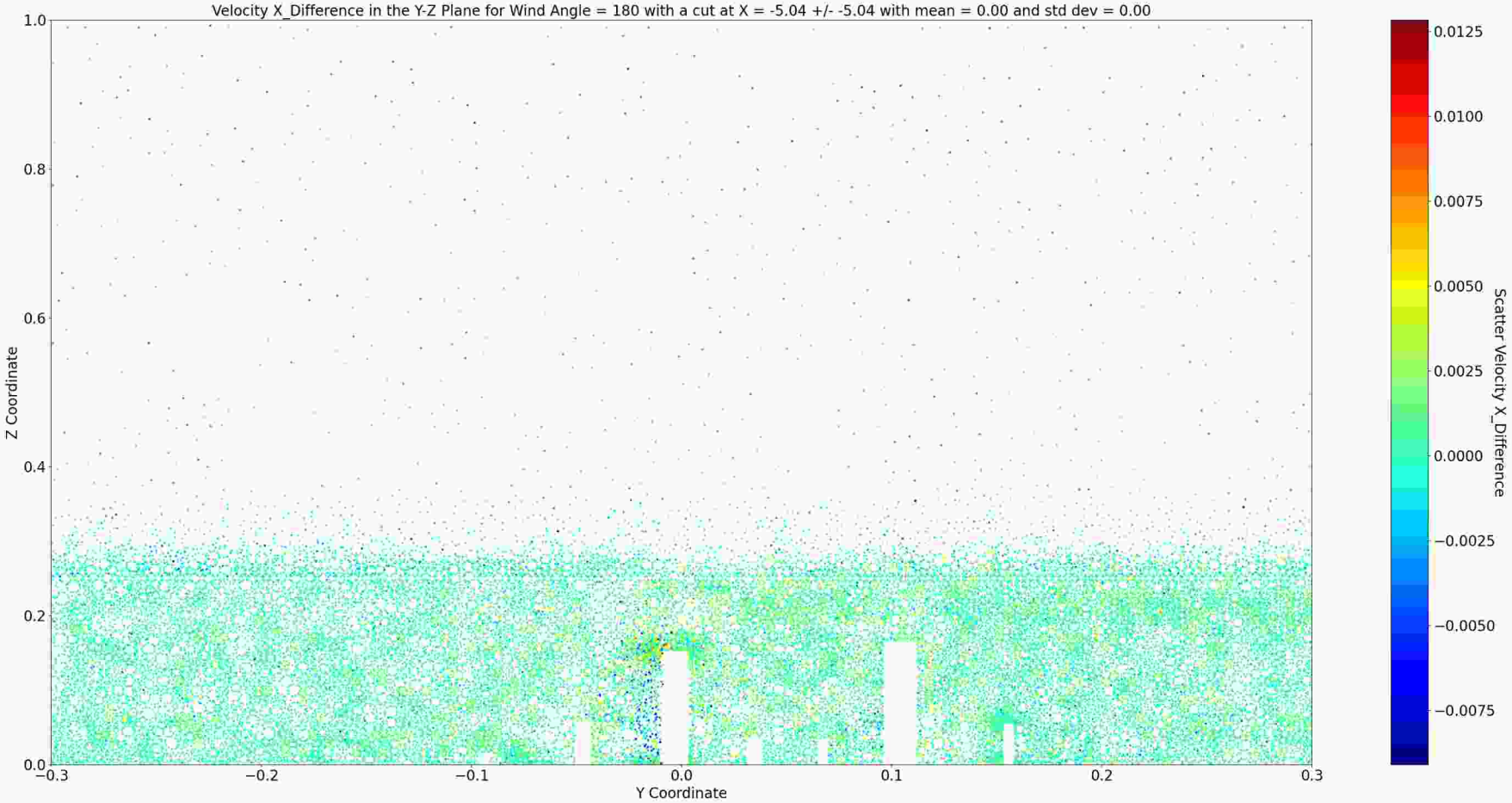

Velocity X_Difference in the Y-Z Plane for Wind Angle = 90 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075
−0.0100


Velocity X_Difference in the Y-Z Plane for Wind Angle = 105 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0100
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075

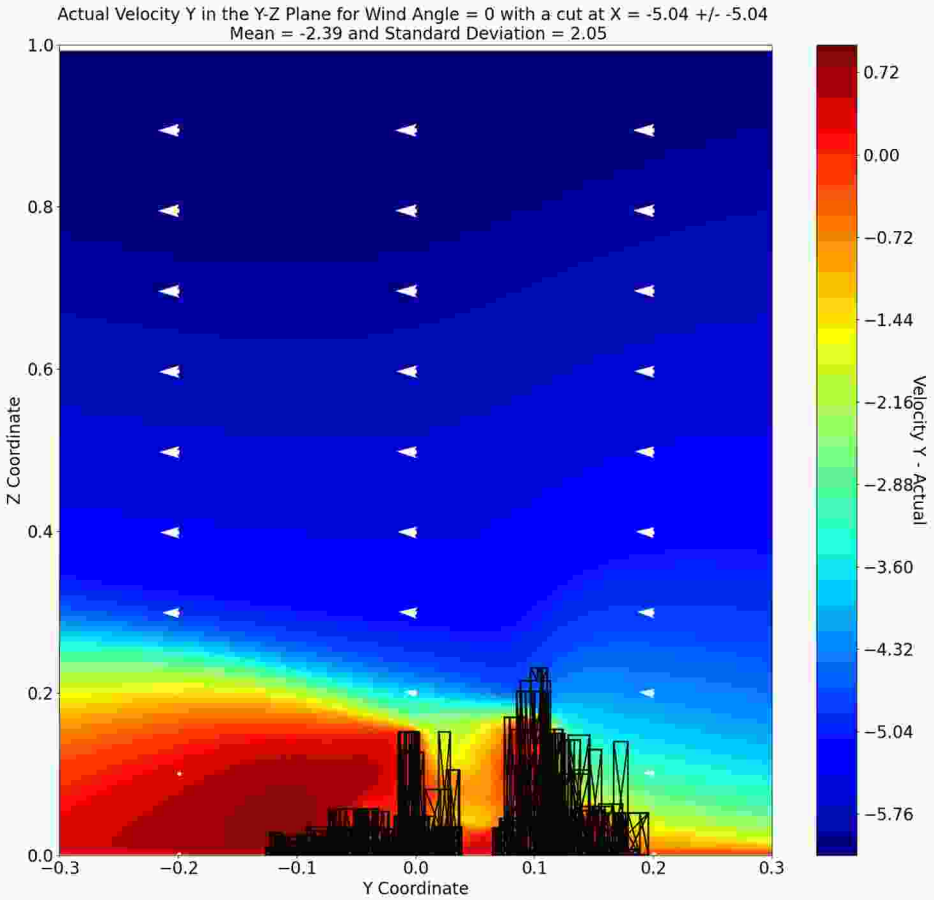

Velocity X_Difference in the Y-Z Plane for Wind Angle = 120 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.008
0.006
0.004
0.002
0.000
−0.002
−0.004
−0.006

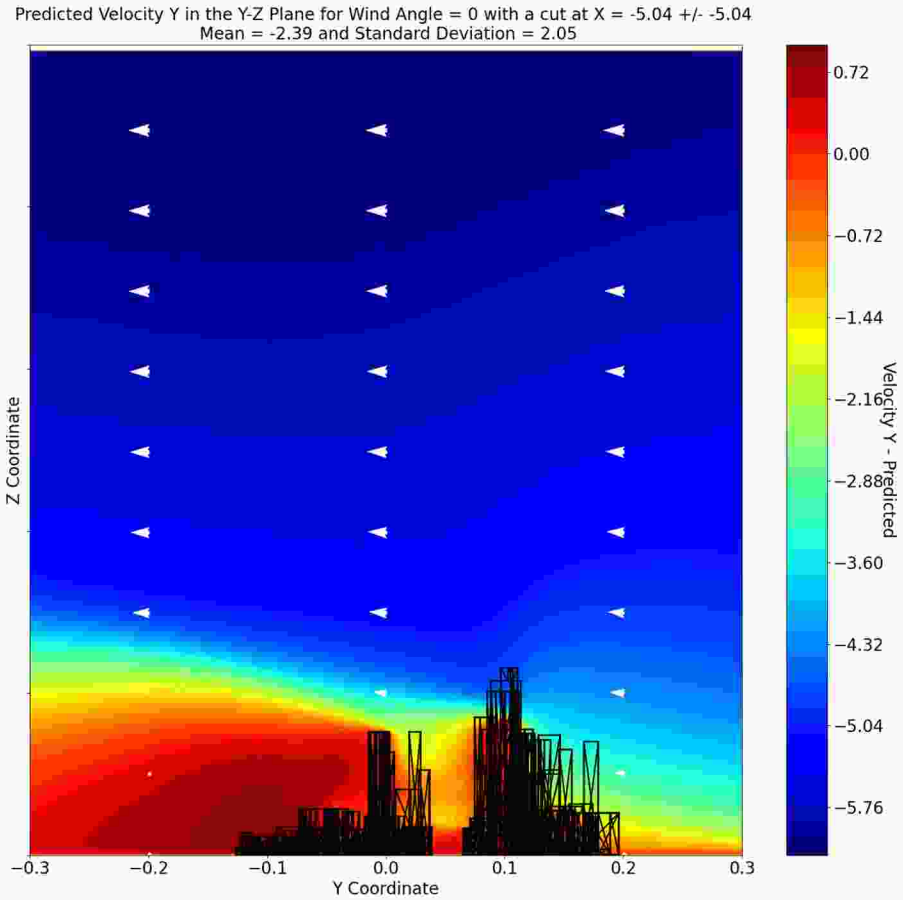

Velocity X_Difference in the Y-Z Plane for Wind Angle = 150 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0100
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075
−0.0100


Velocity X_Difference in the Y-Z Plane for Wind Angle = 165 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.010
0.005
0.000
−0.005
−0.010
−0.015

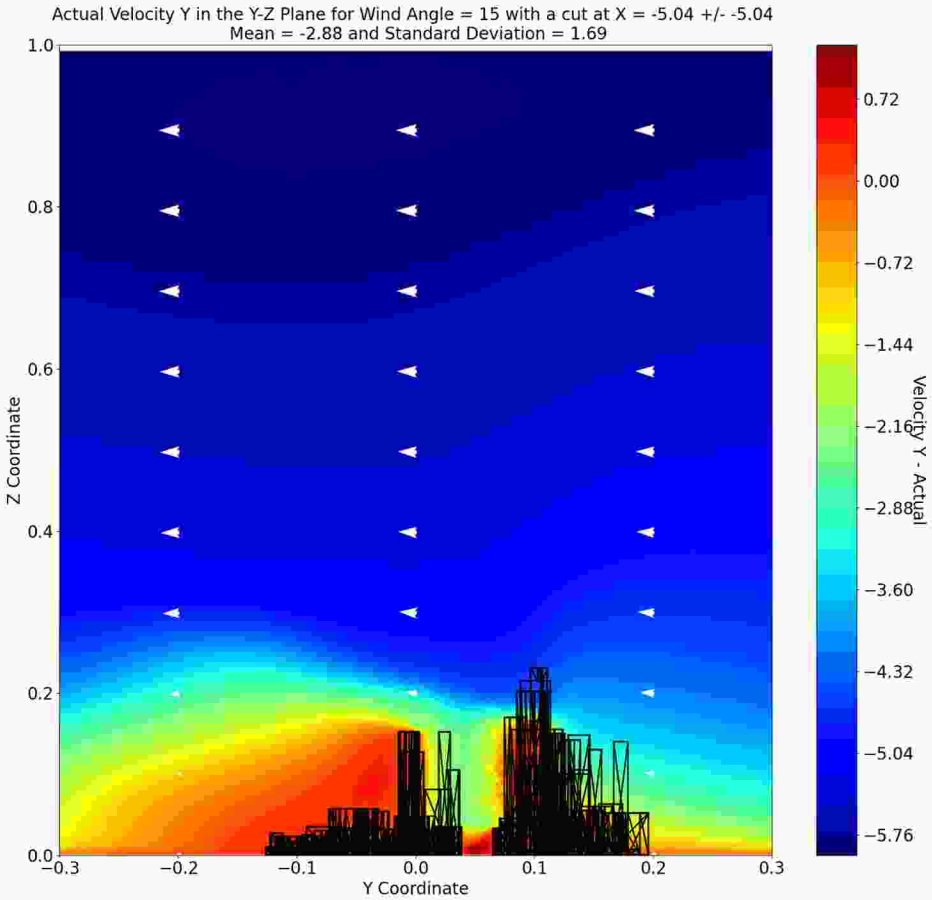

Velocity X_Difference in the Y-Z Plane for Wind Angle = 180 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0125
0.0100
0.0075
0.0050
0.0025
0.0000
−0.0025
−0.0050
−0.0075

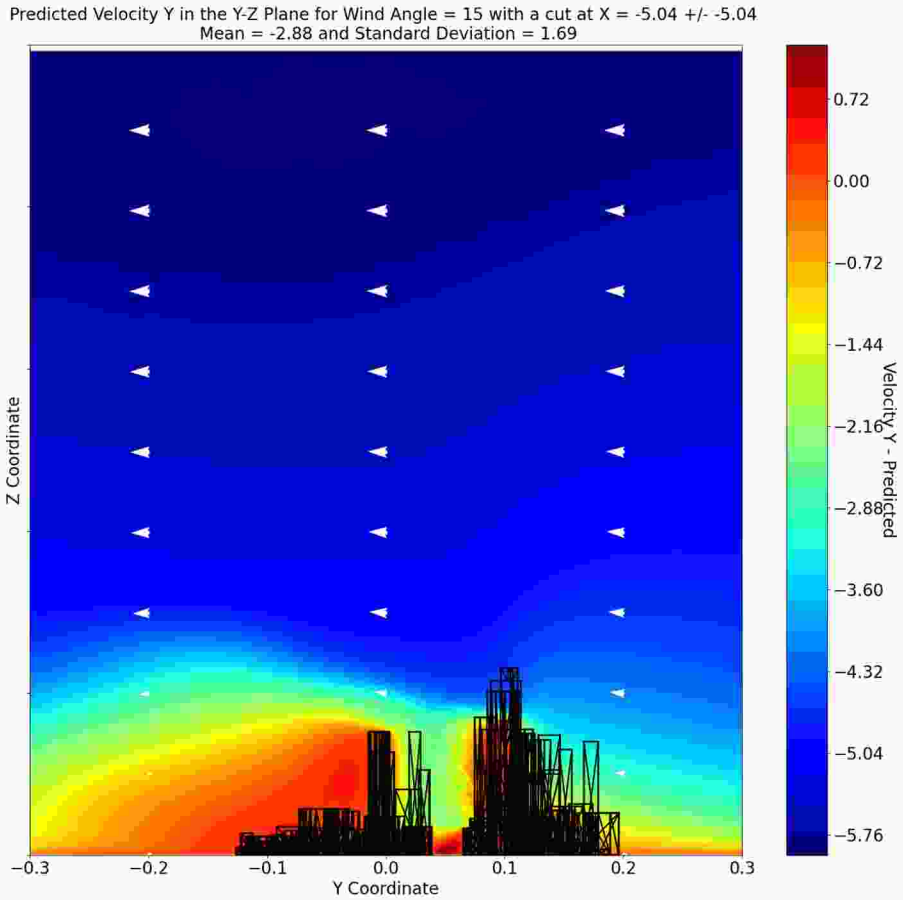
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



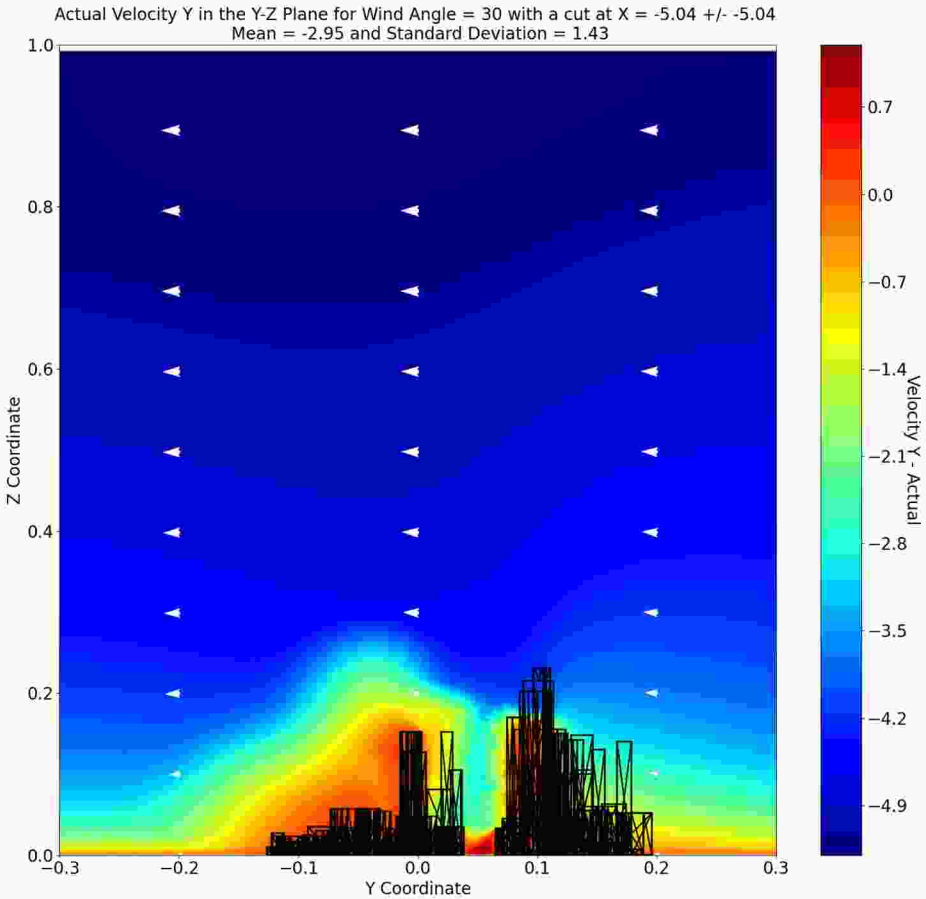


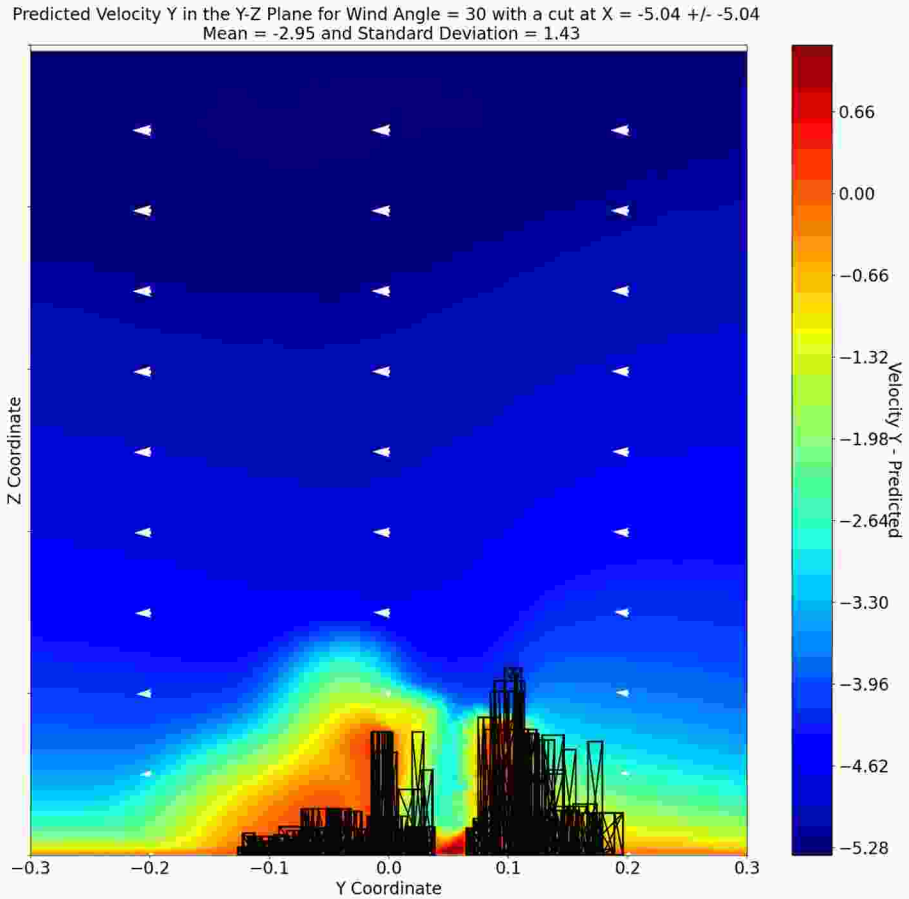
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



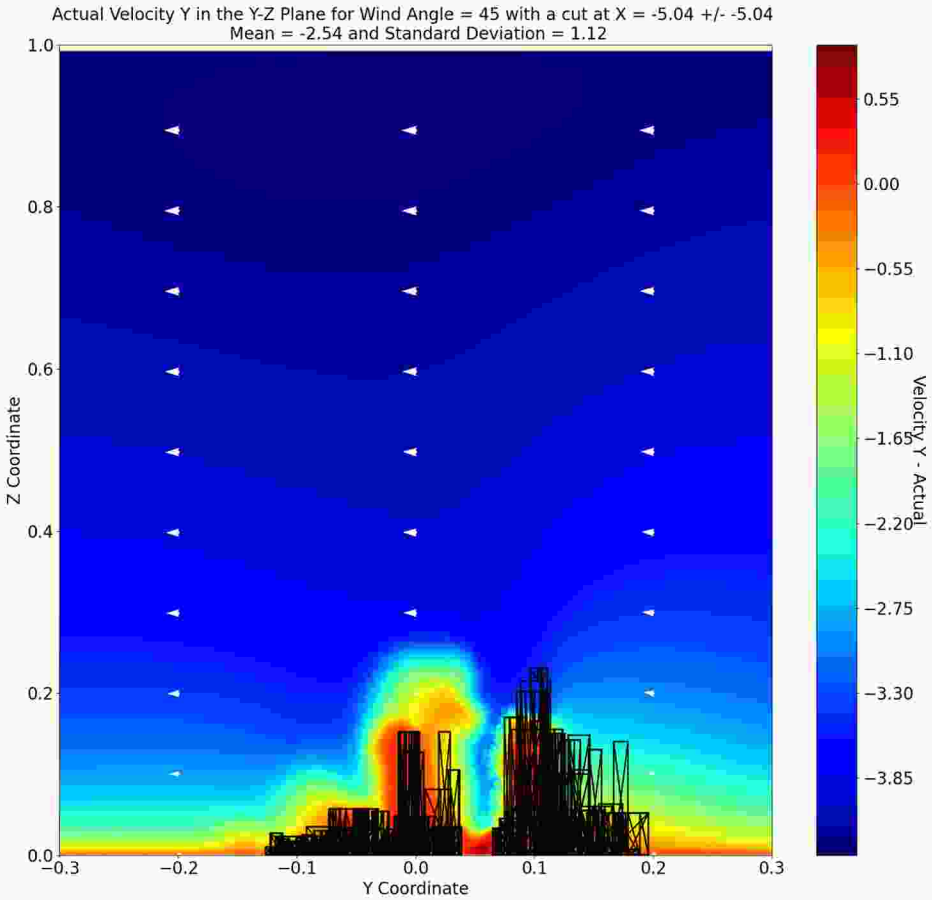


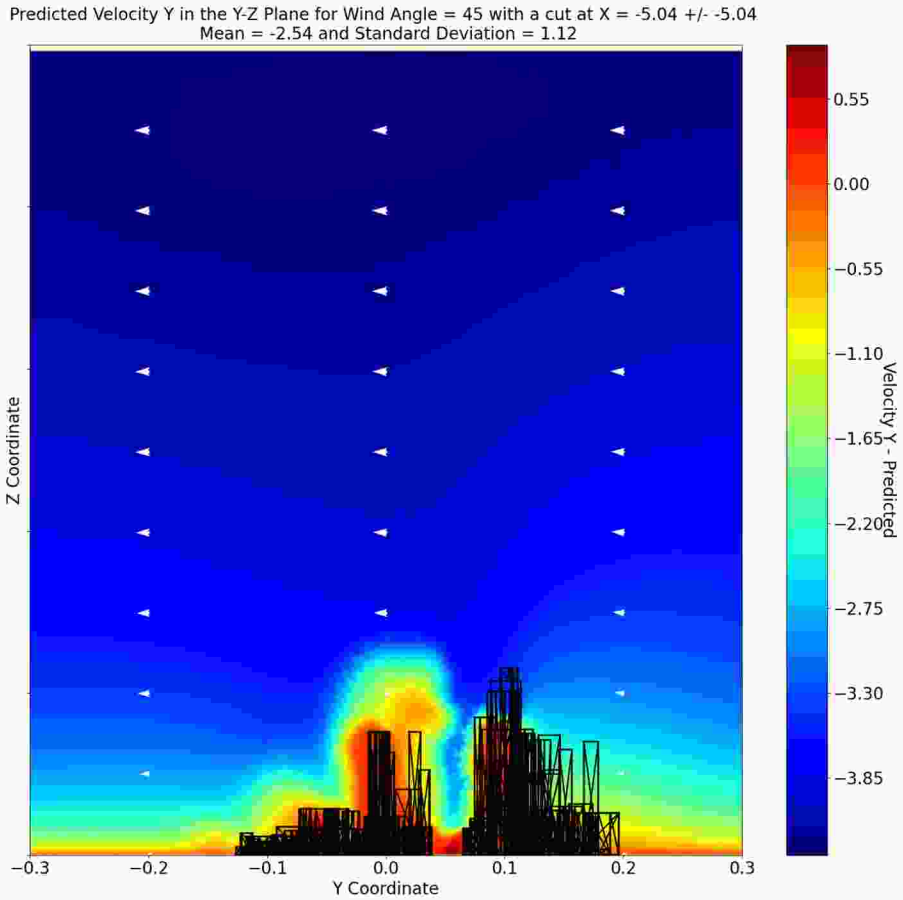
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



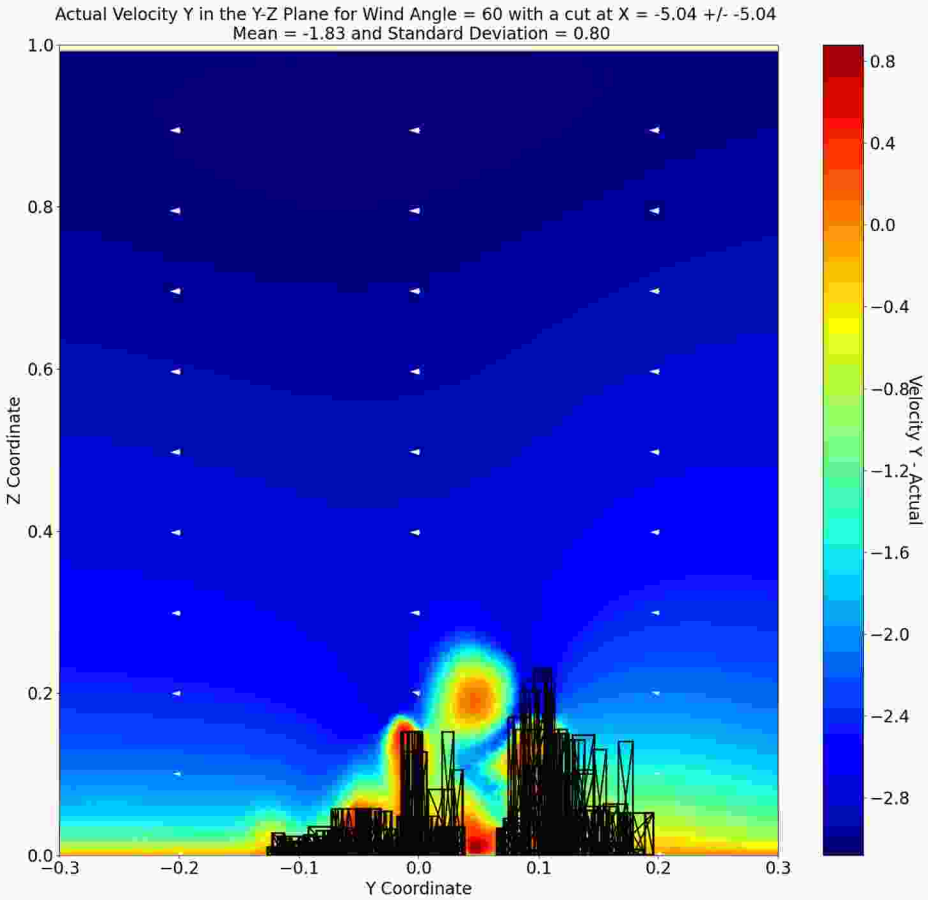


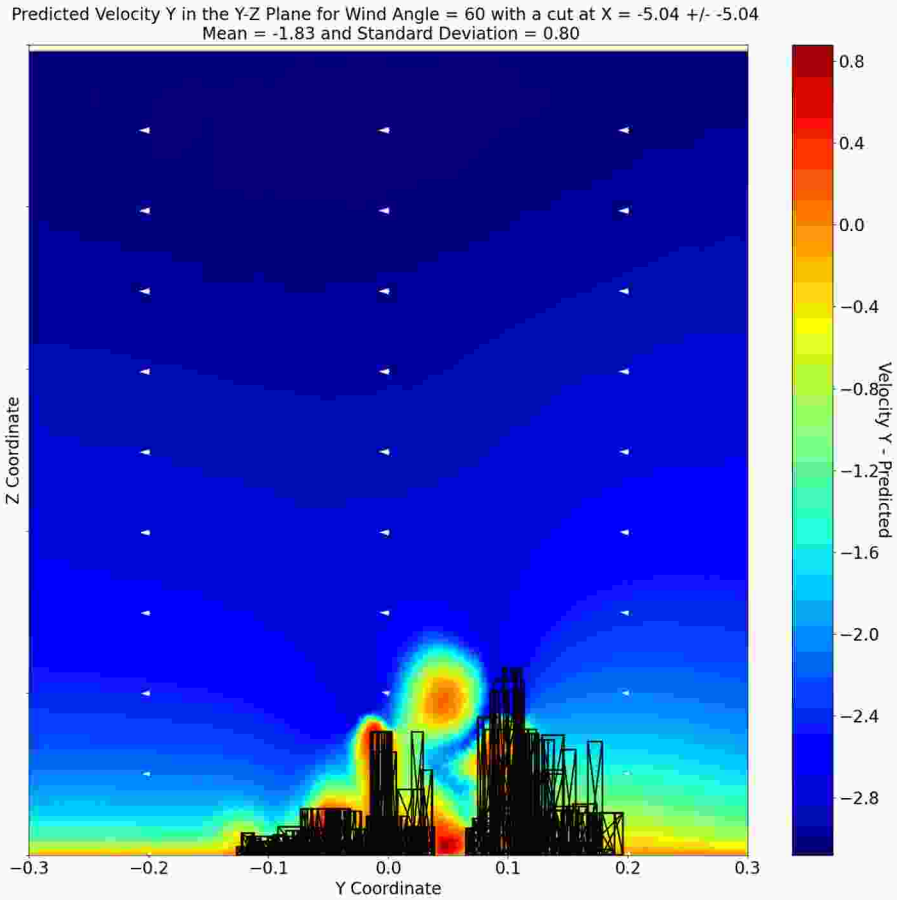
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



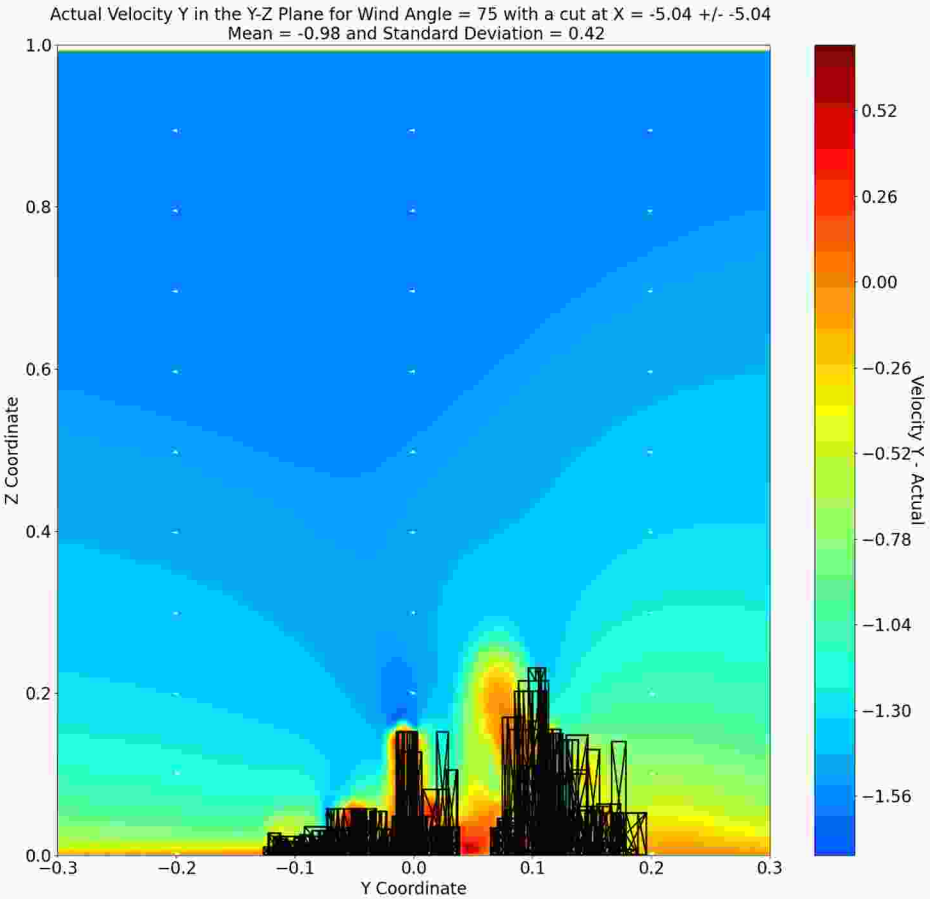


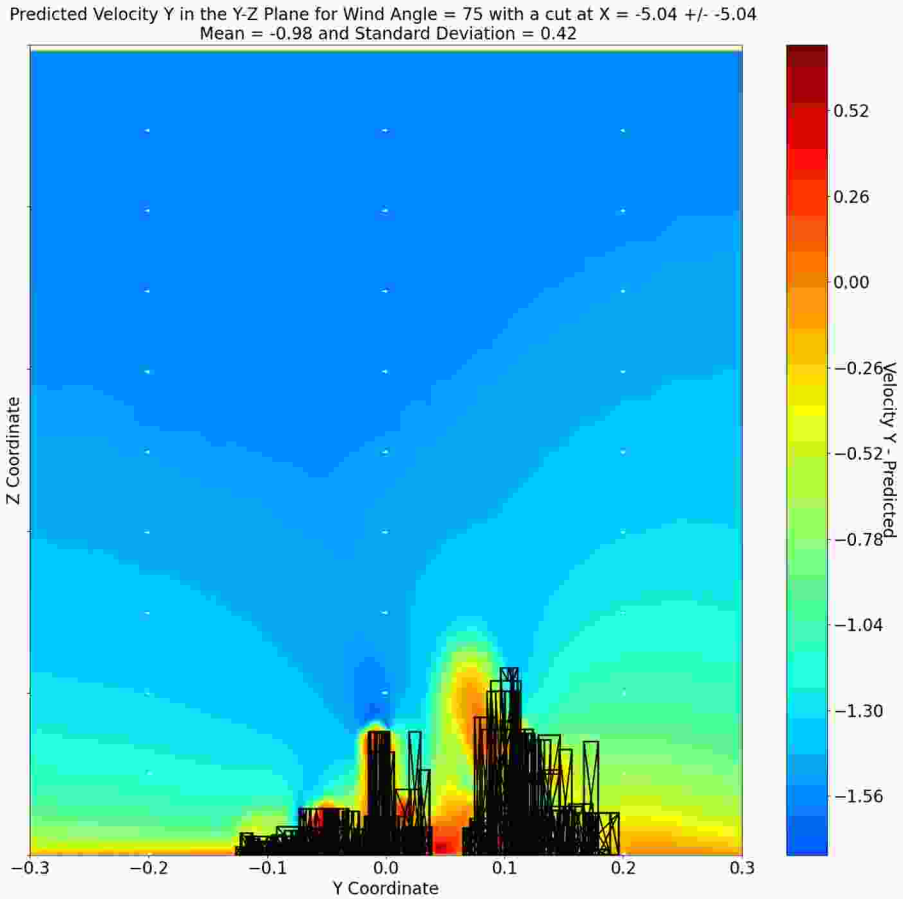
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



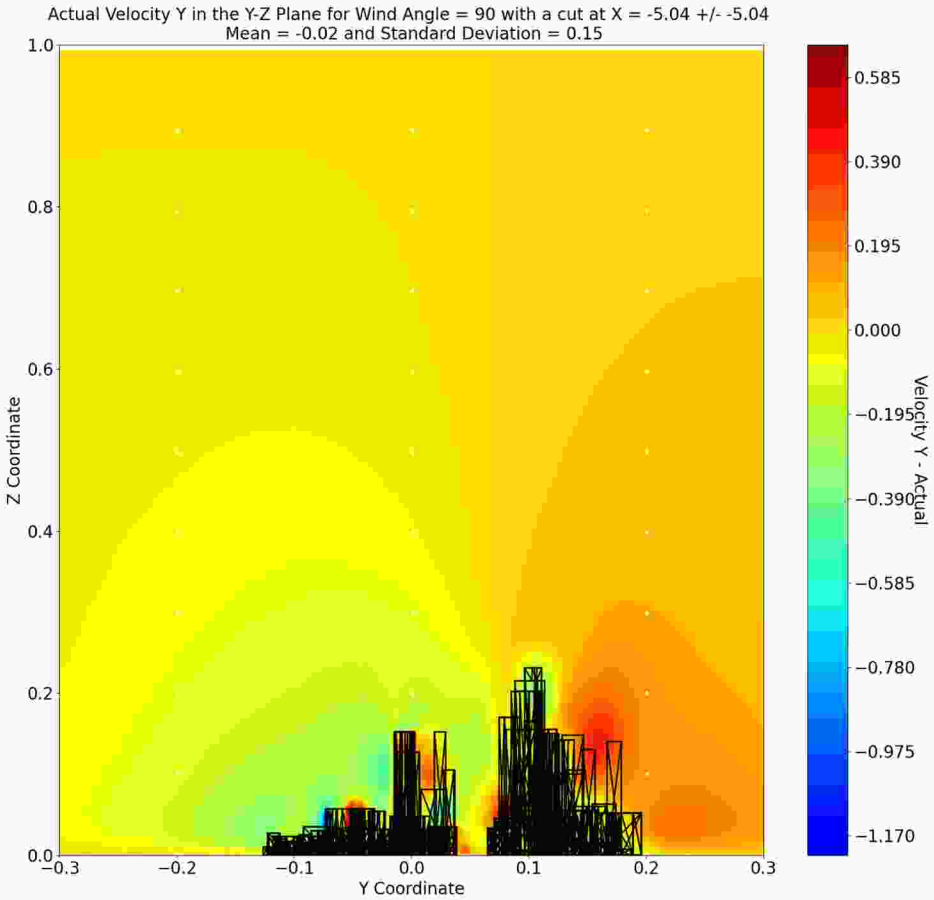


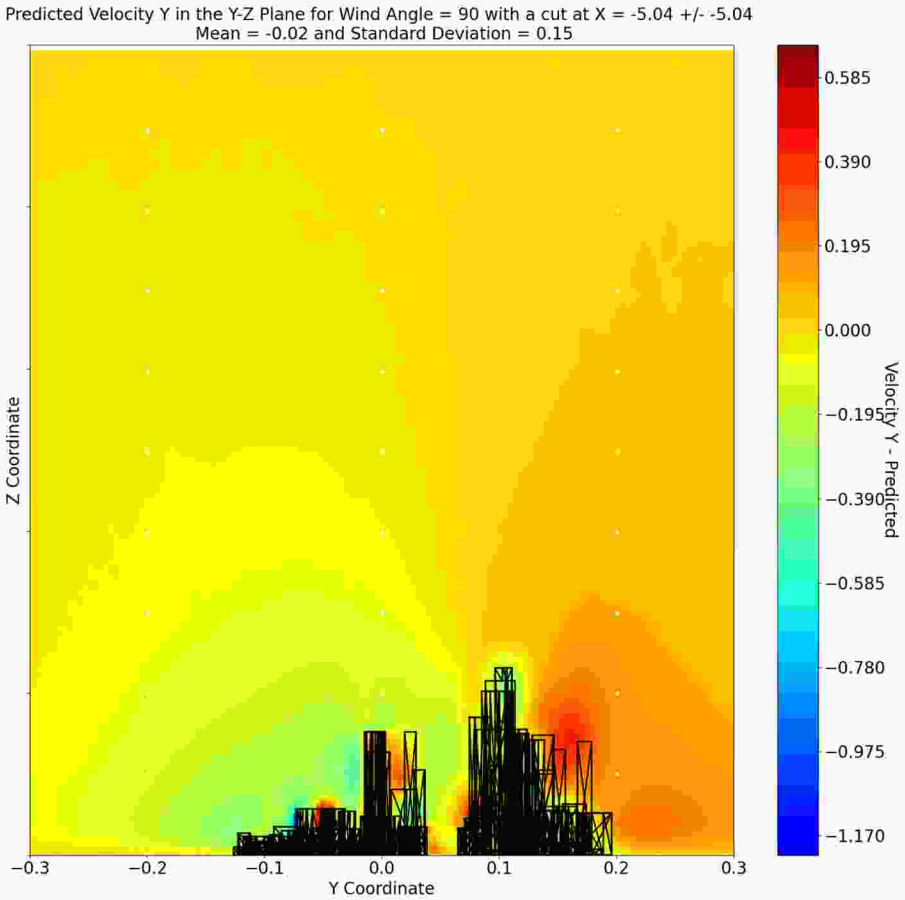
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



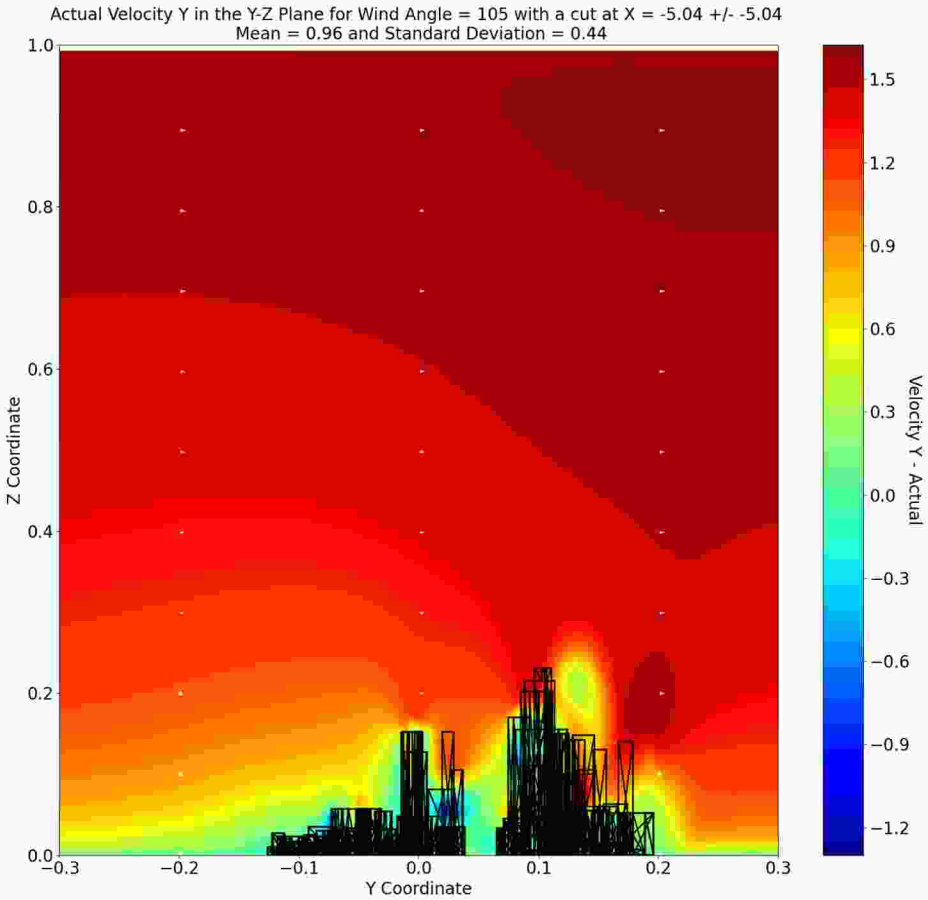


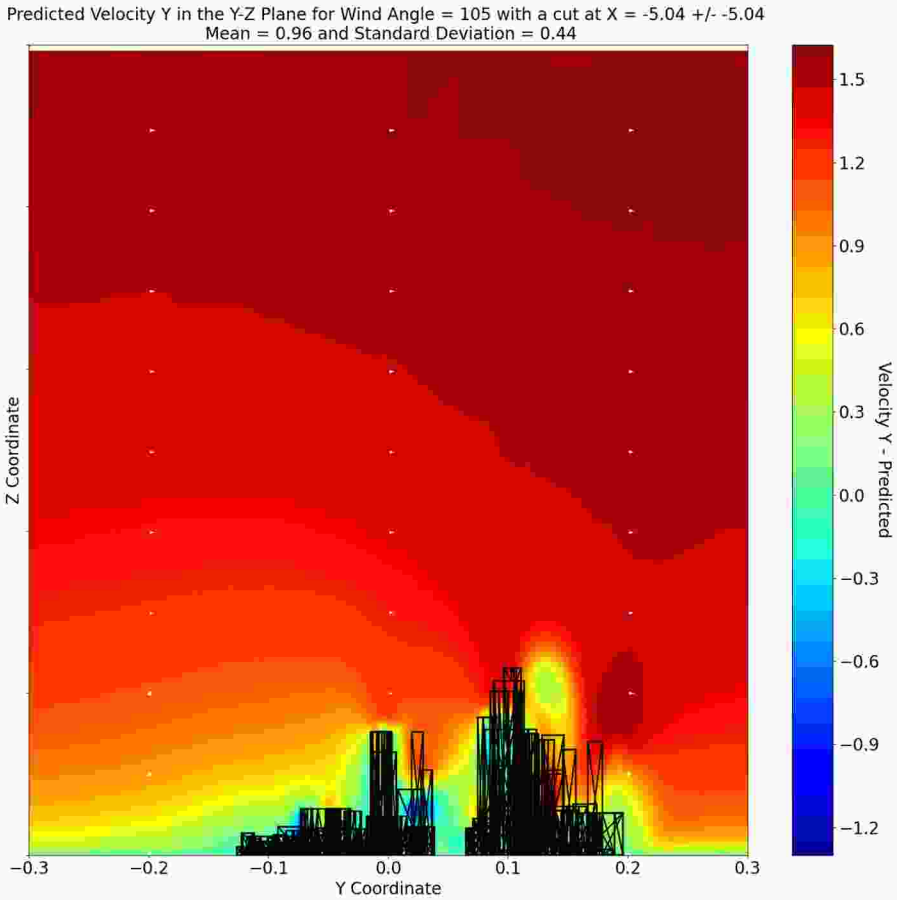
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



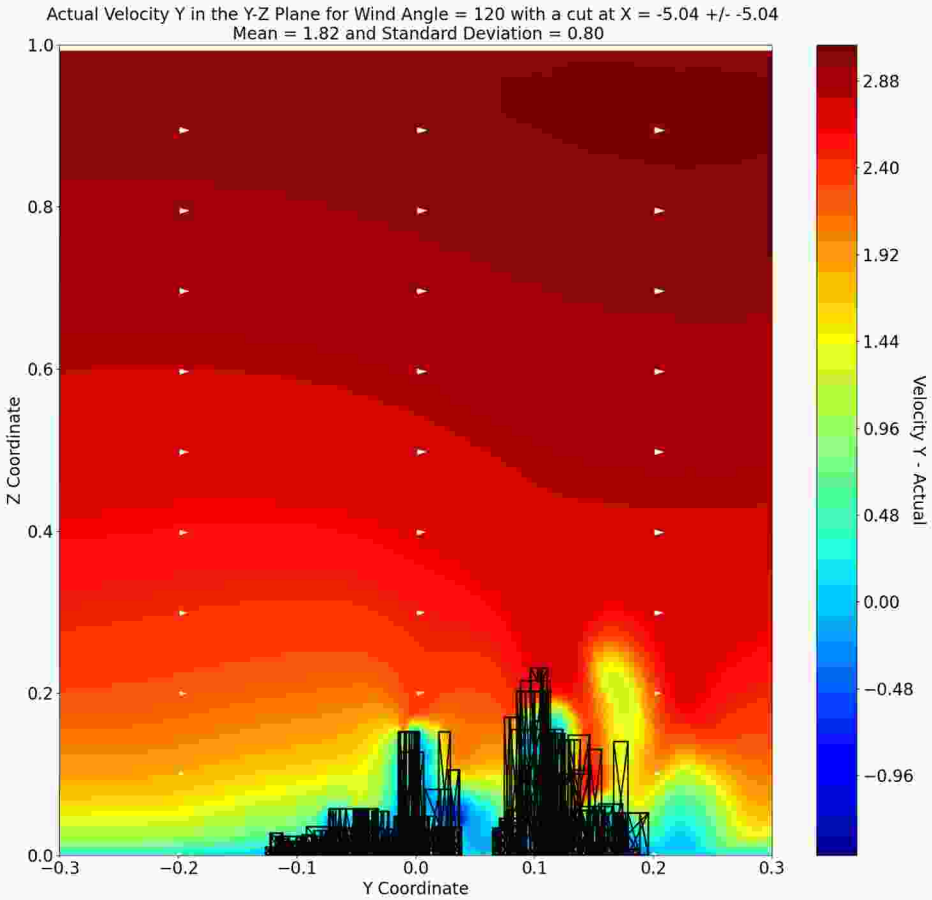


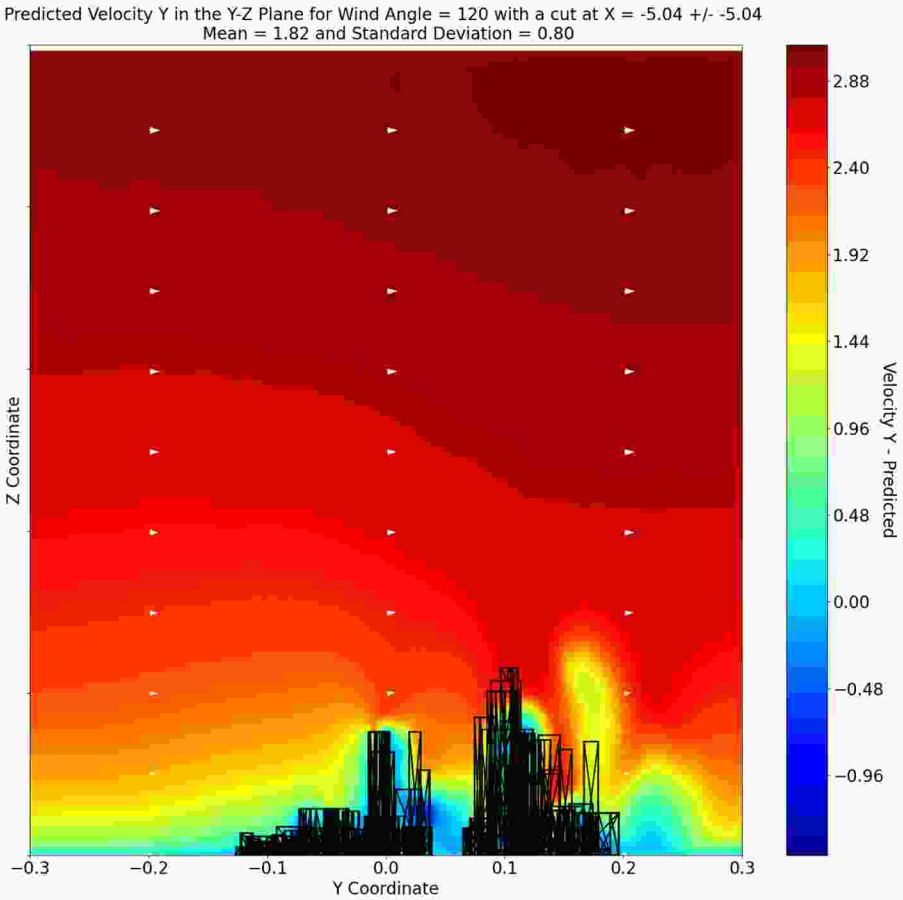
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



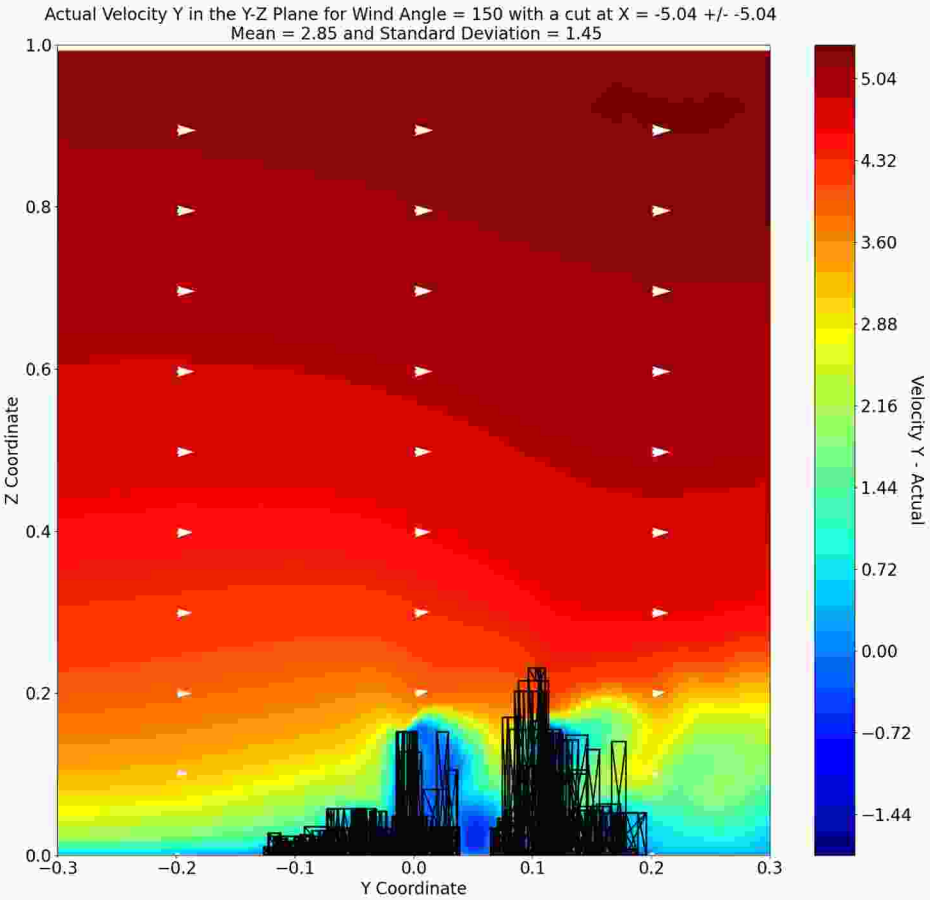


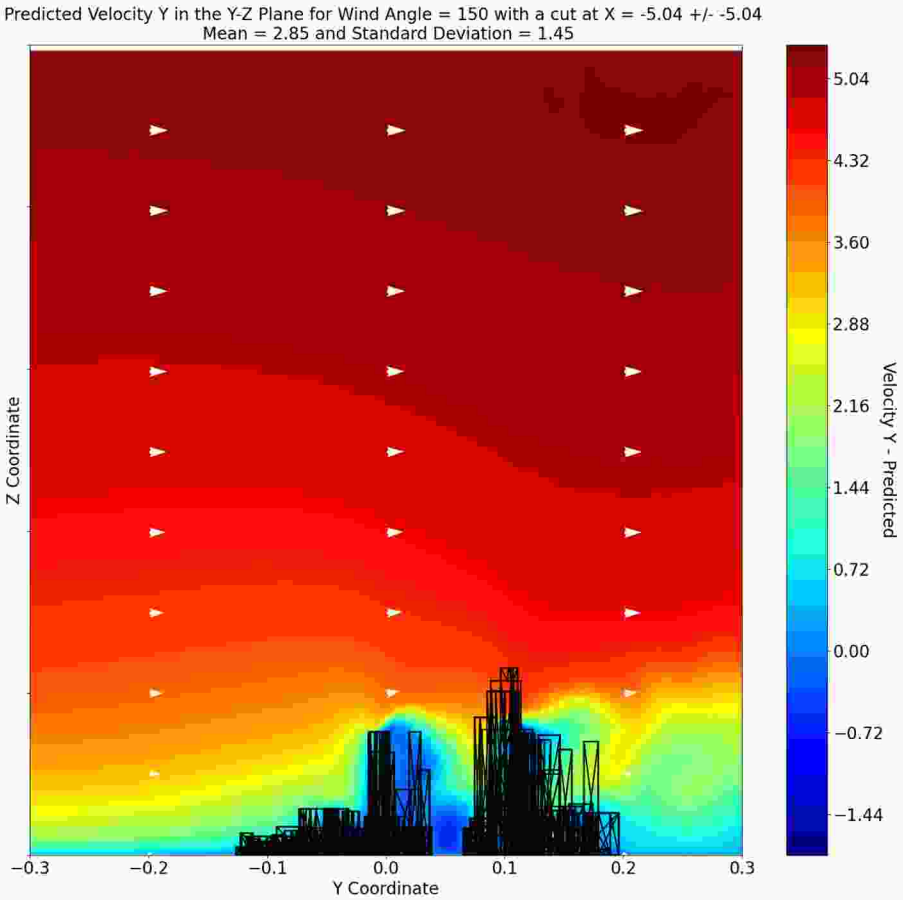
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



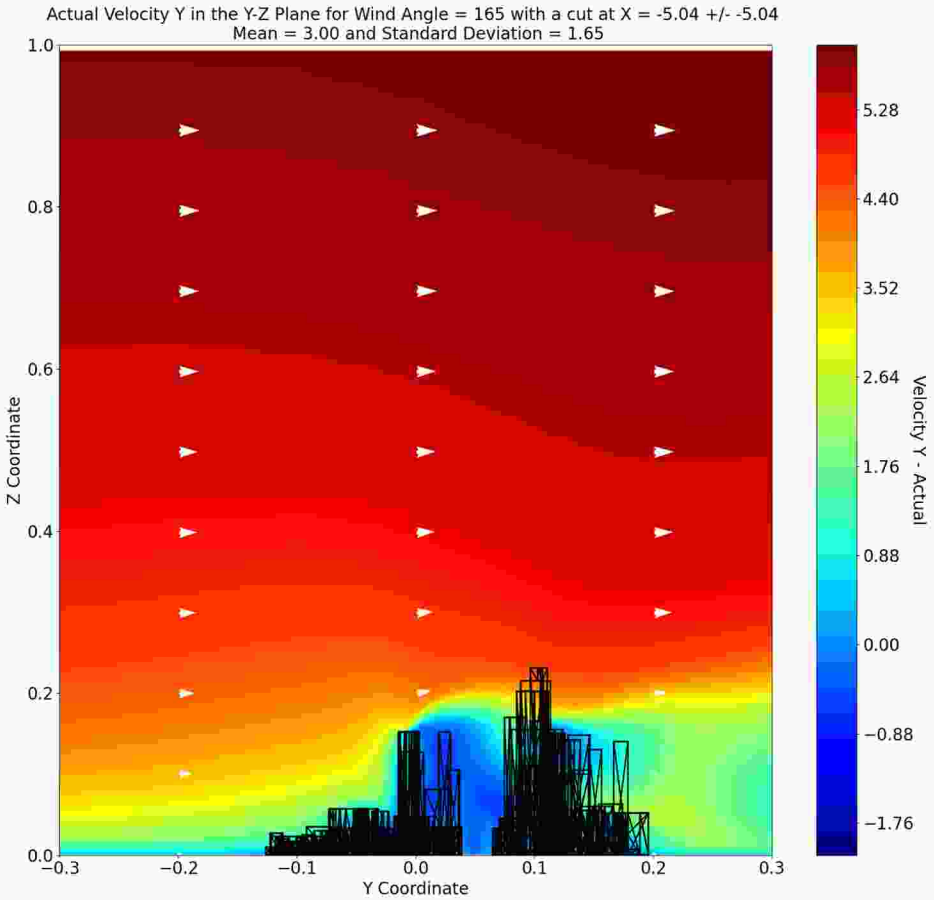


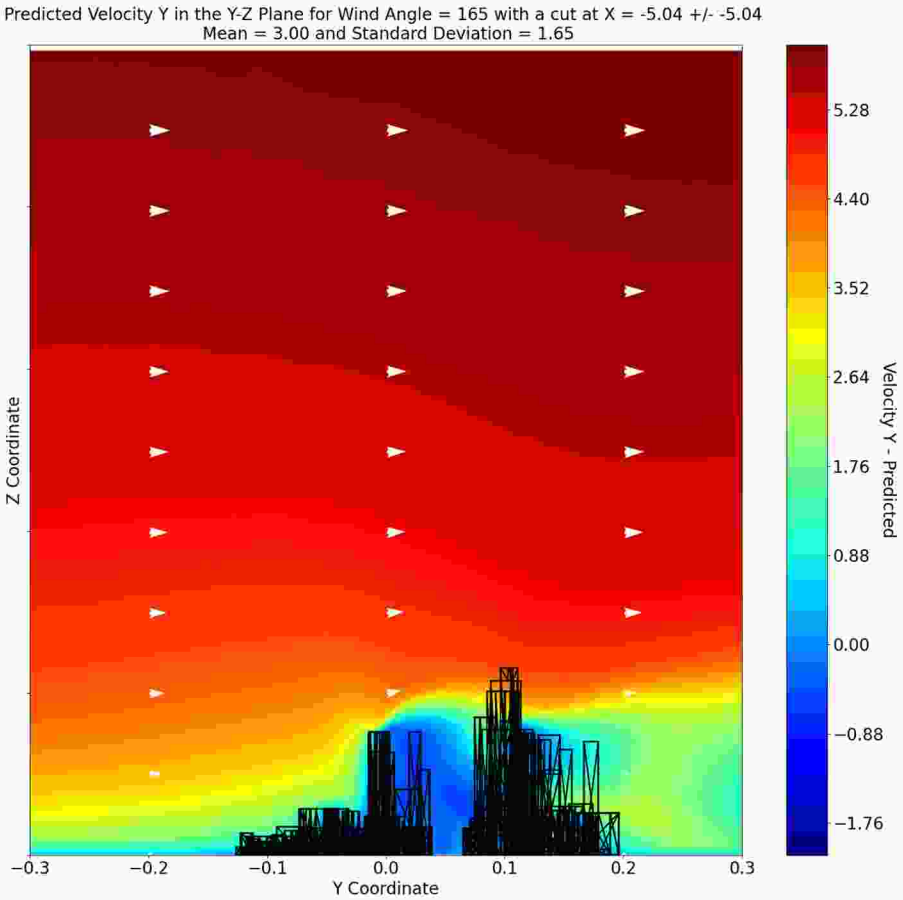
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



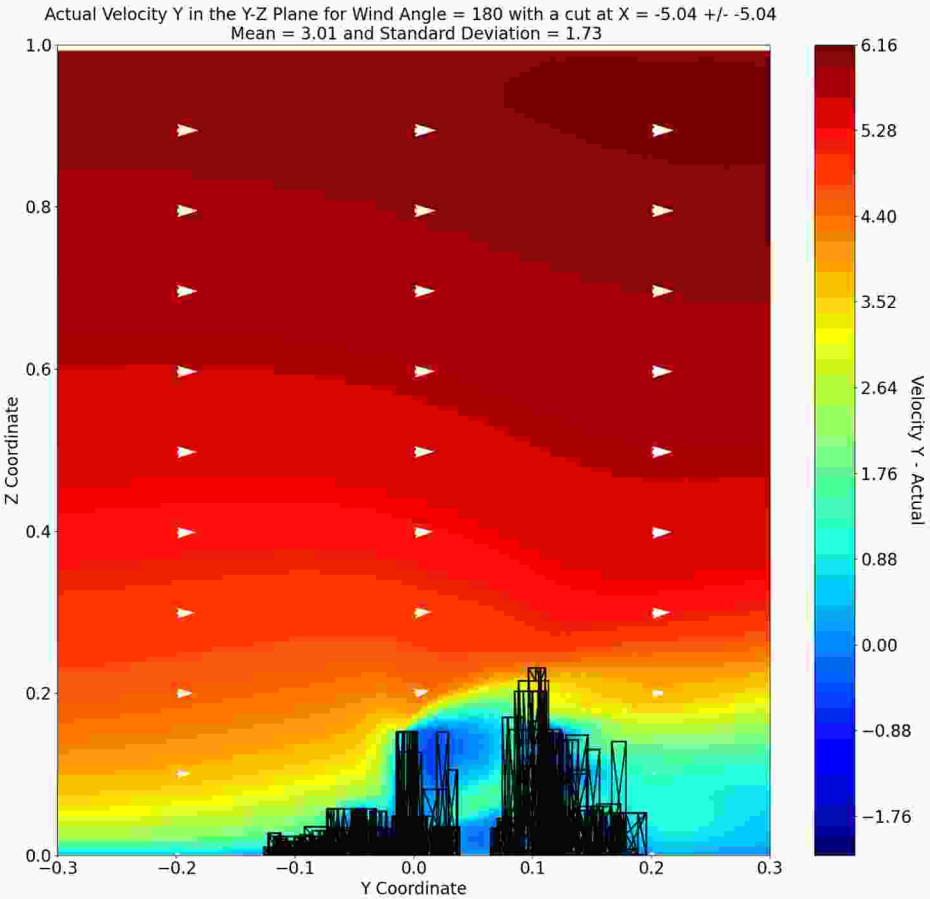


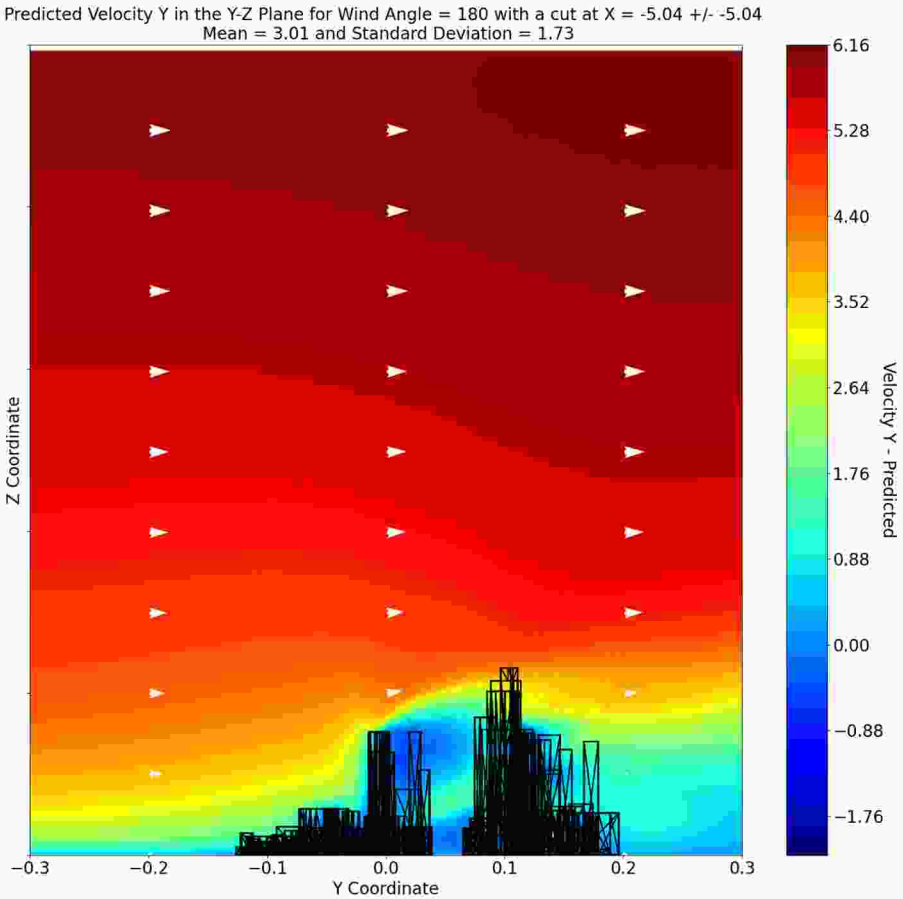
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



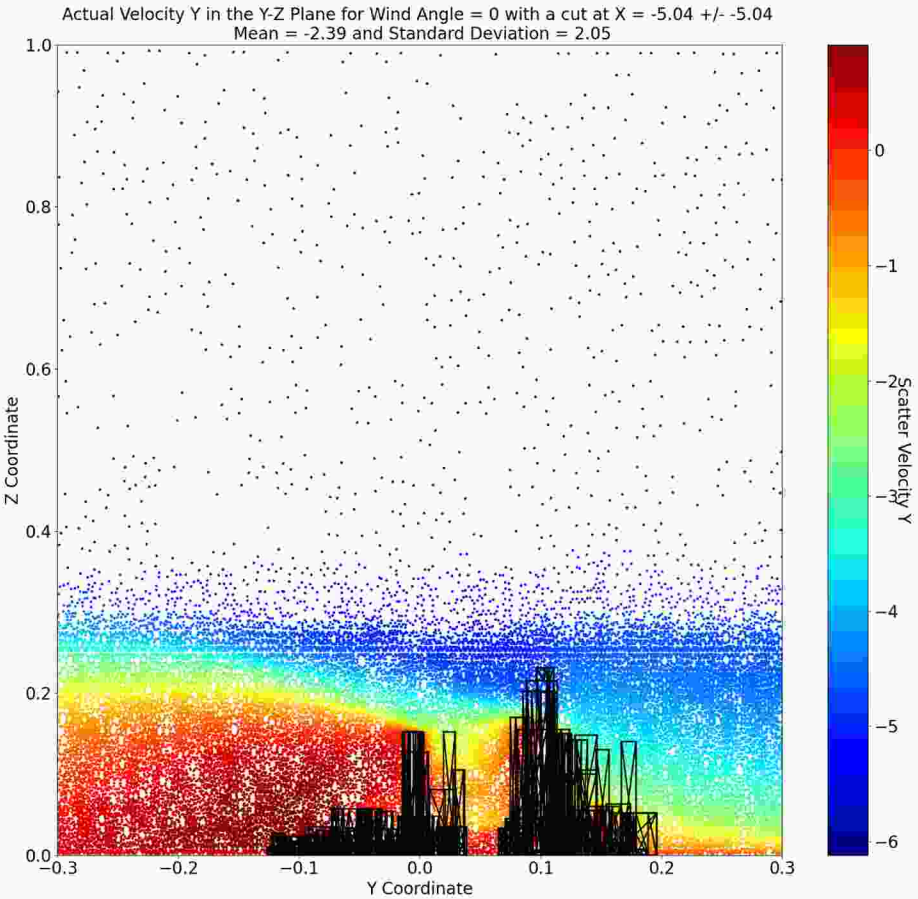


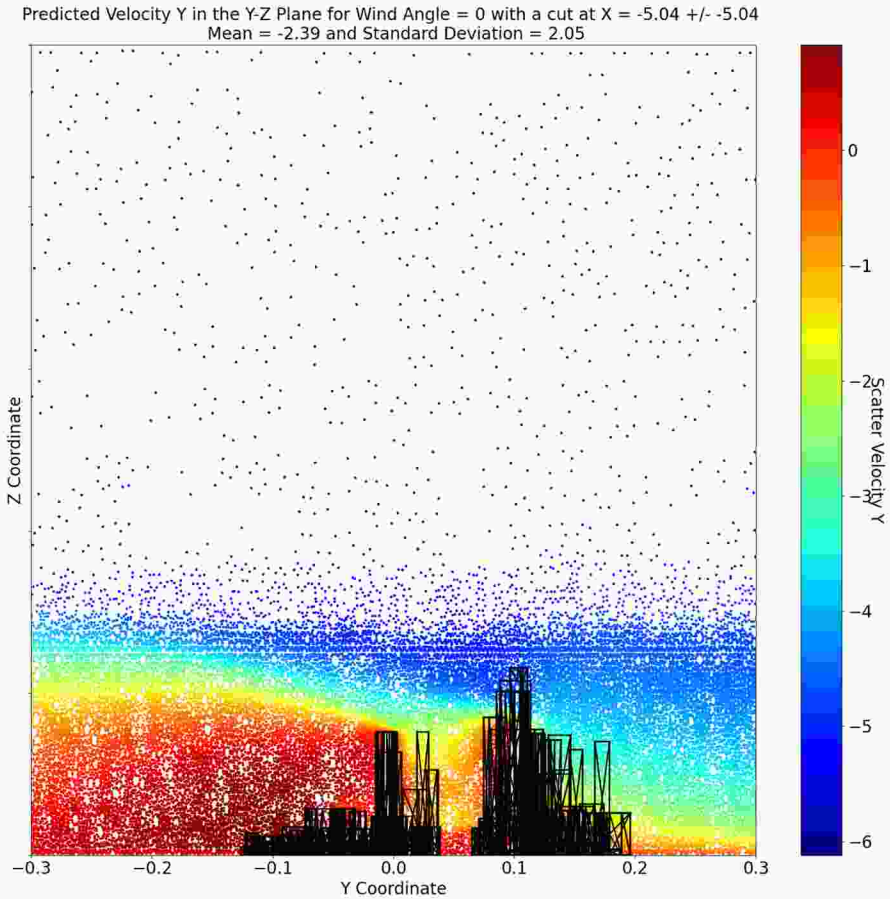
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



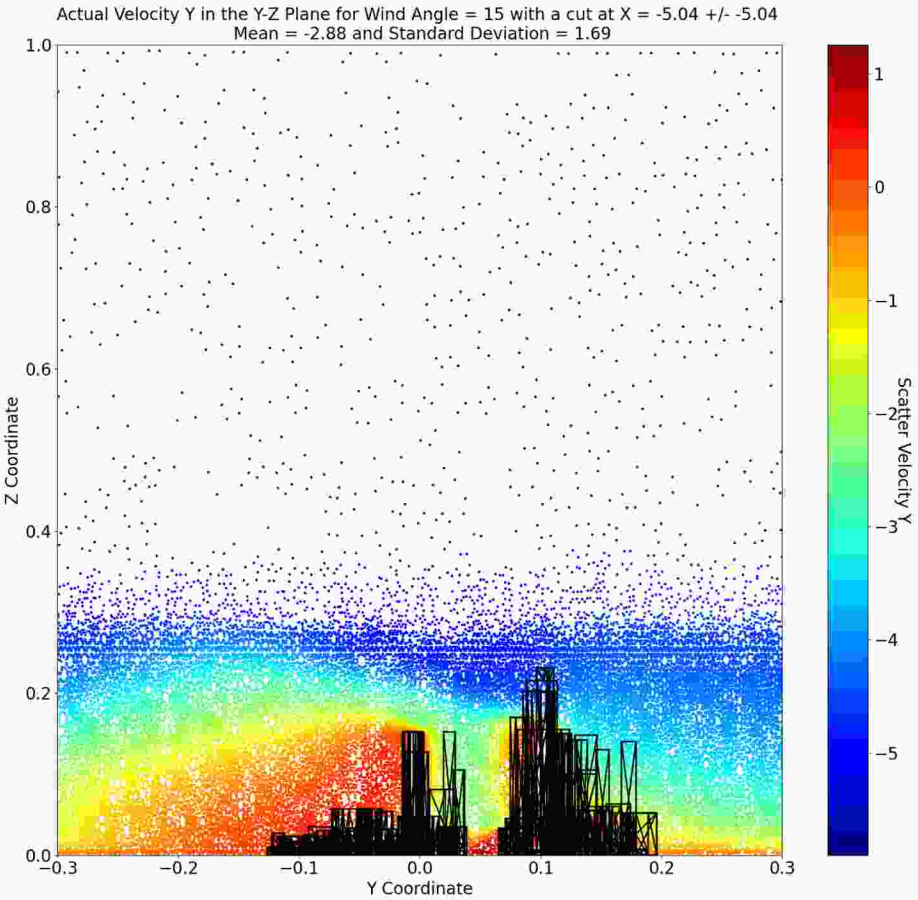


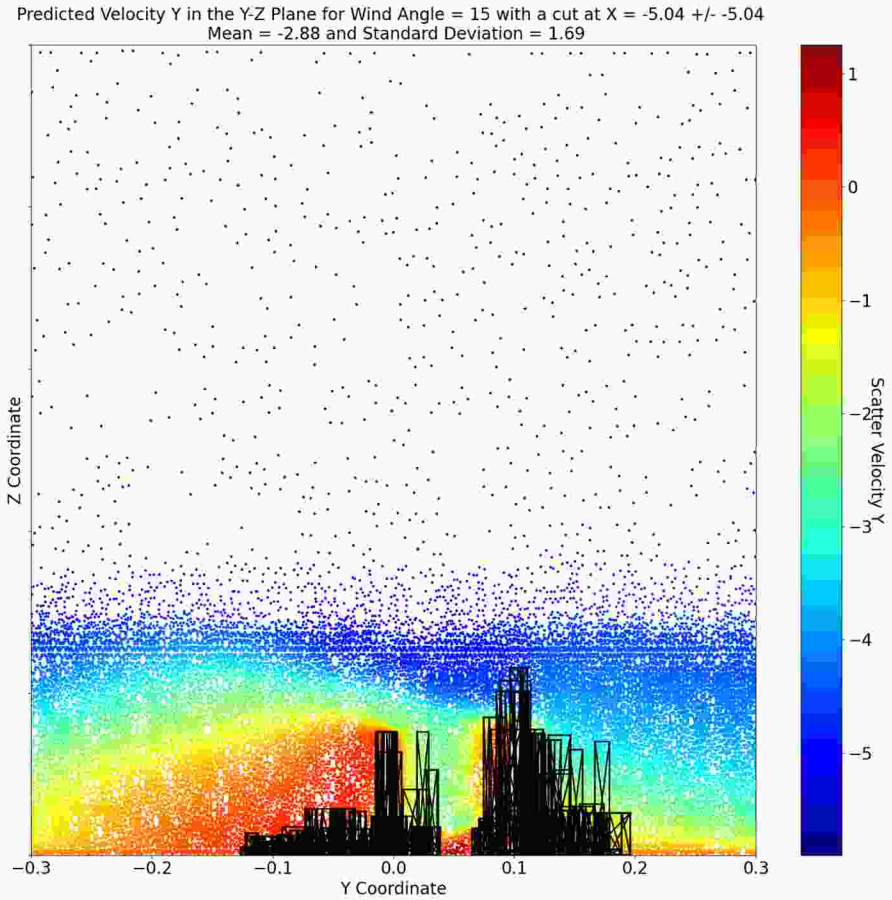
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



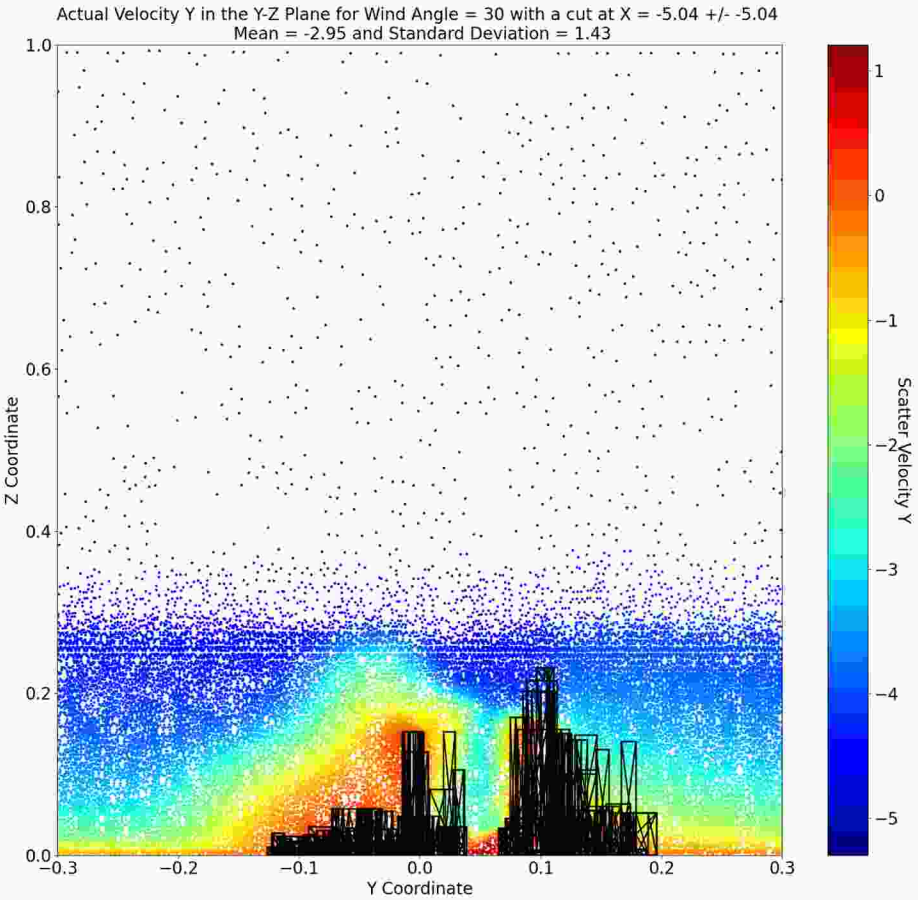


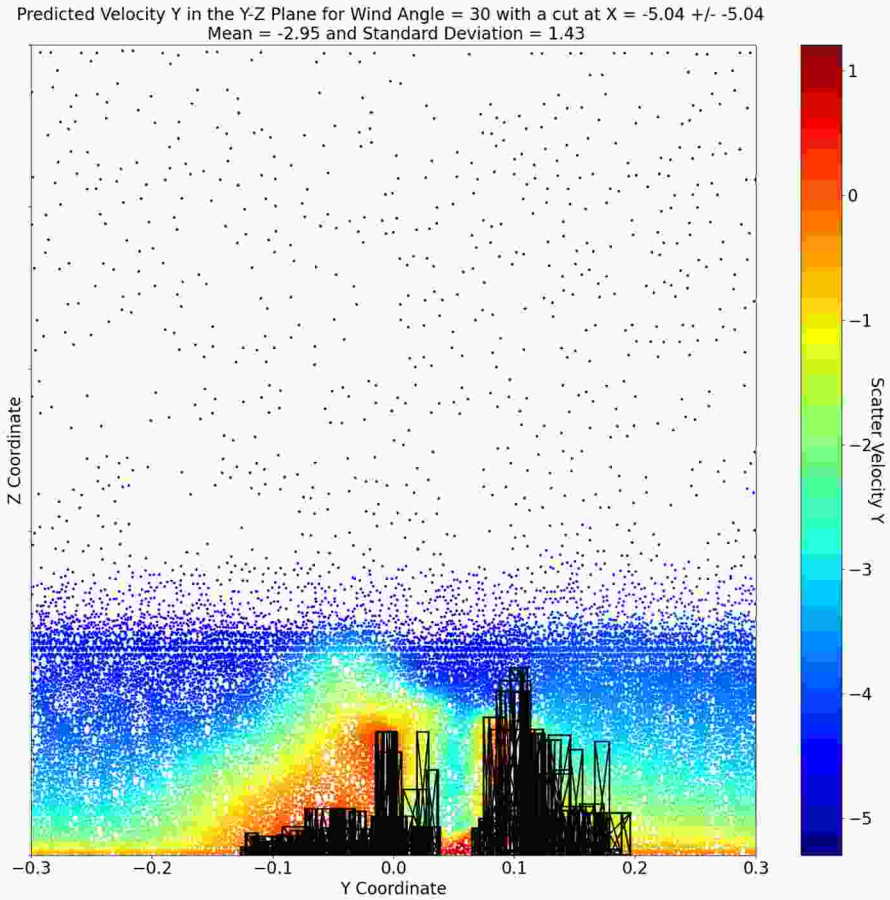
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



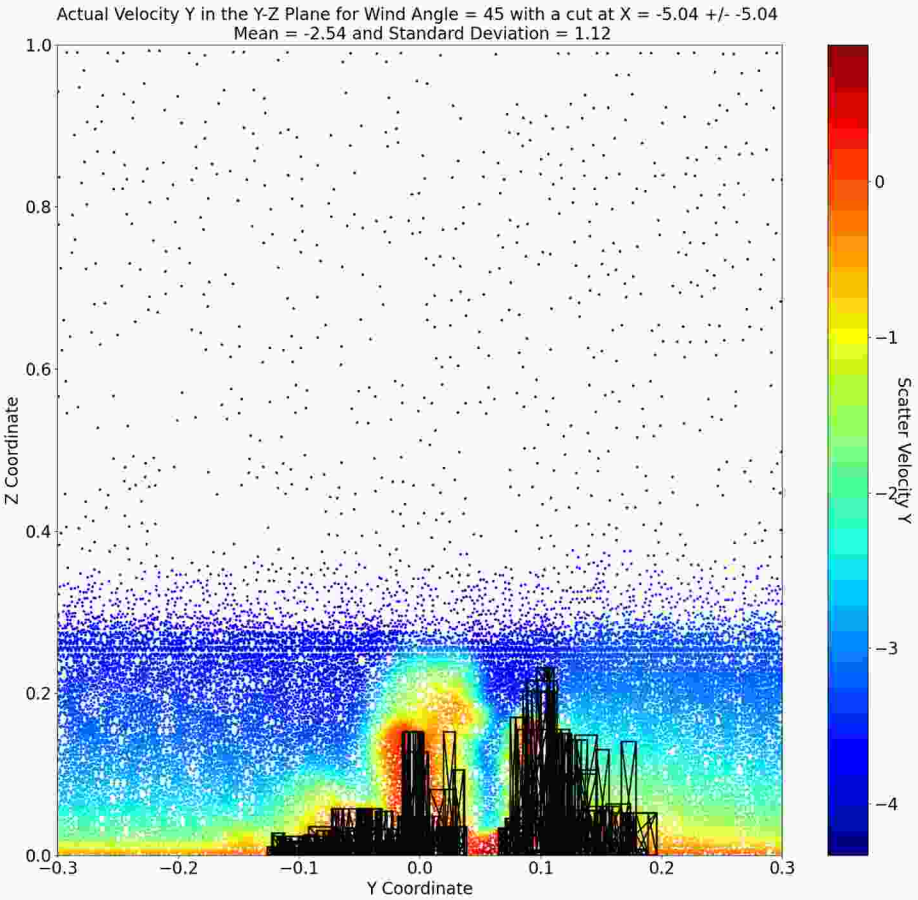


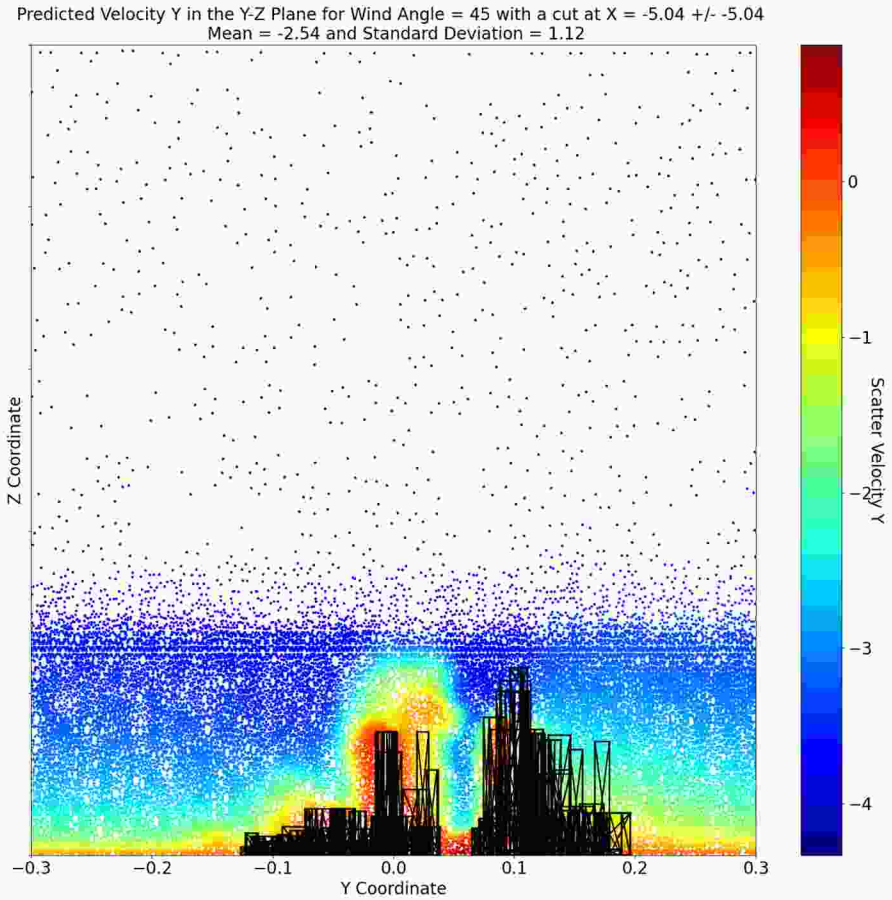
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



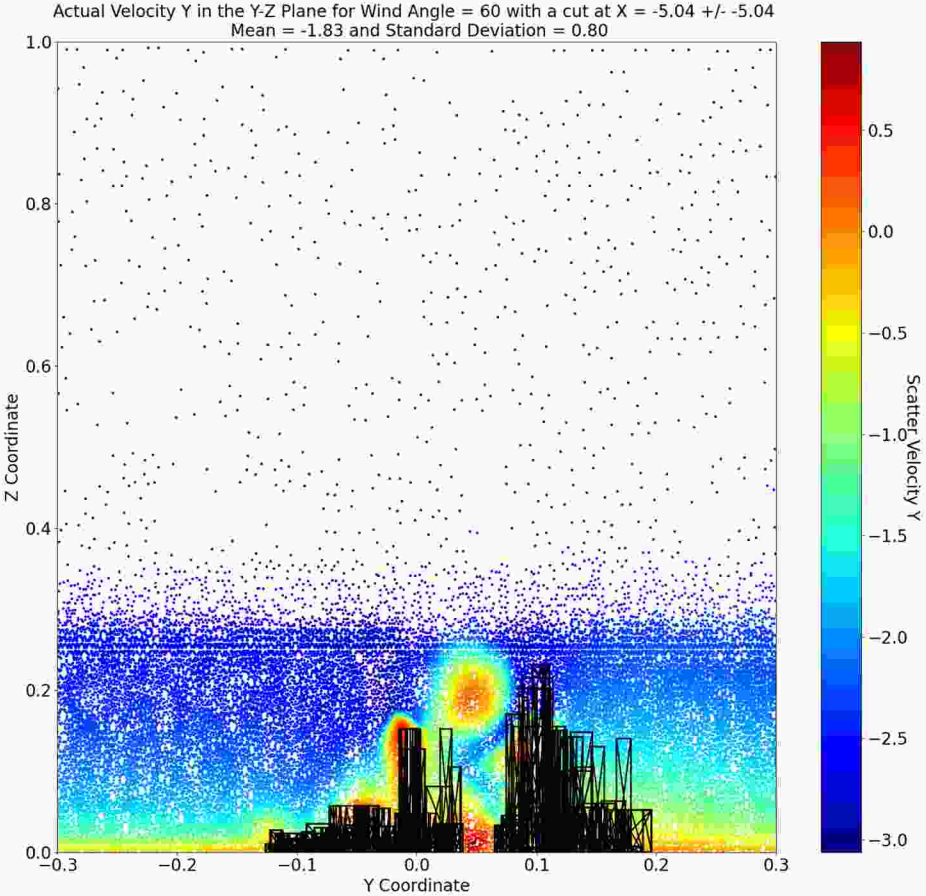


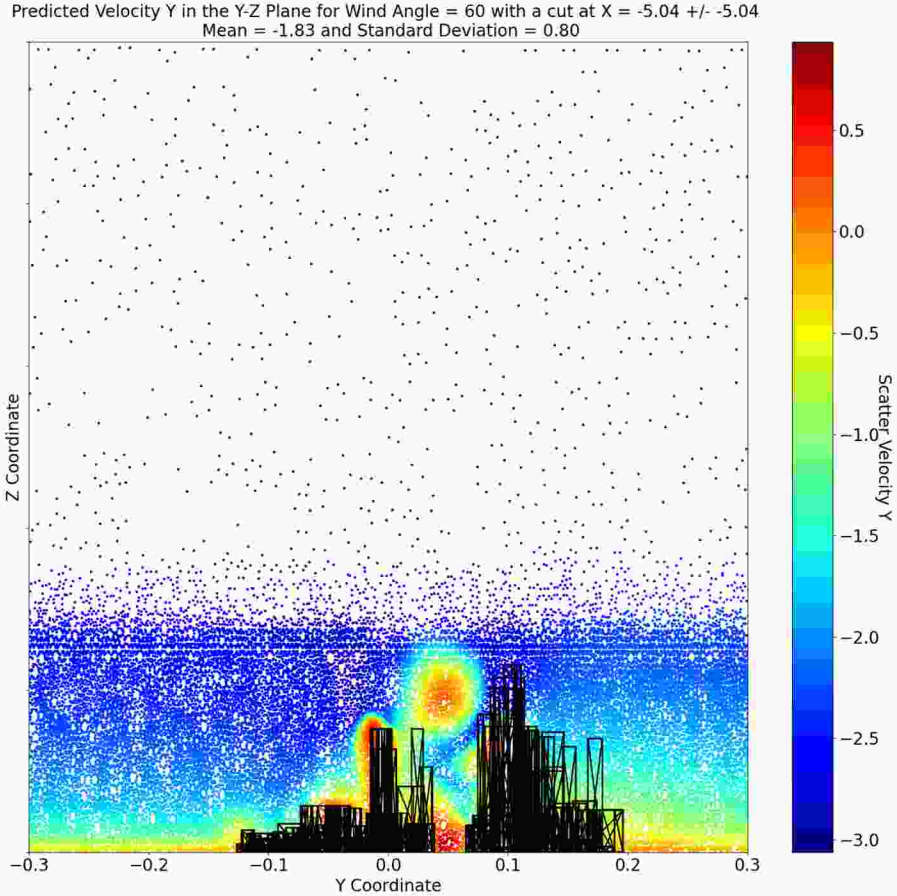
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



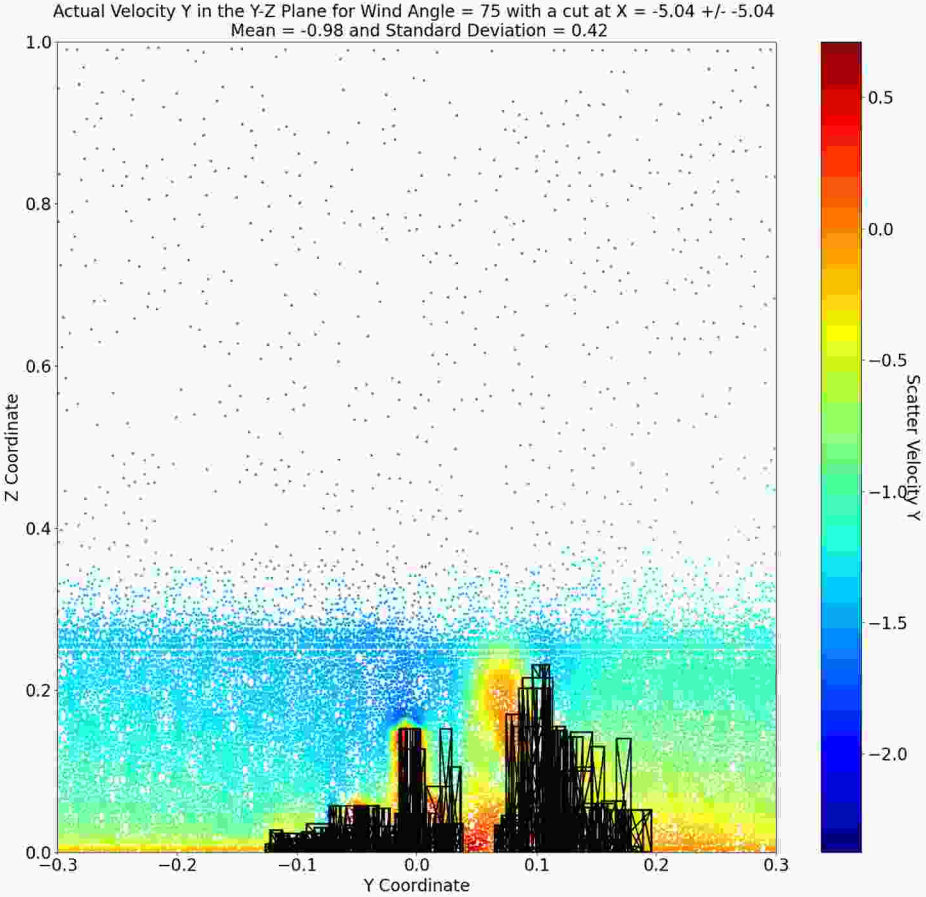


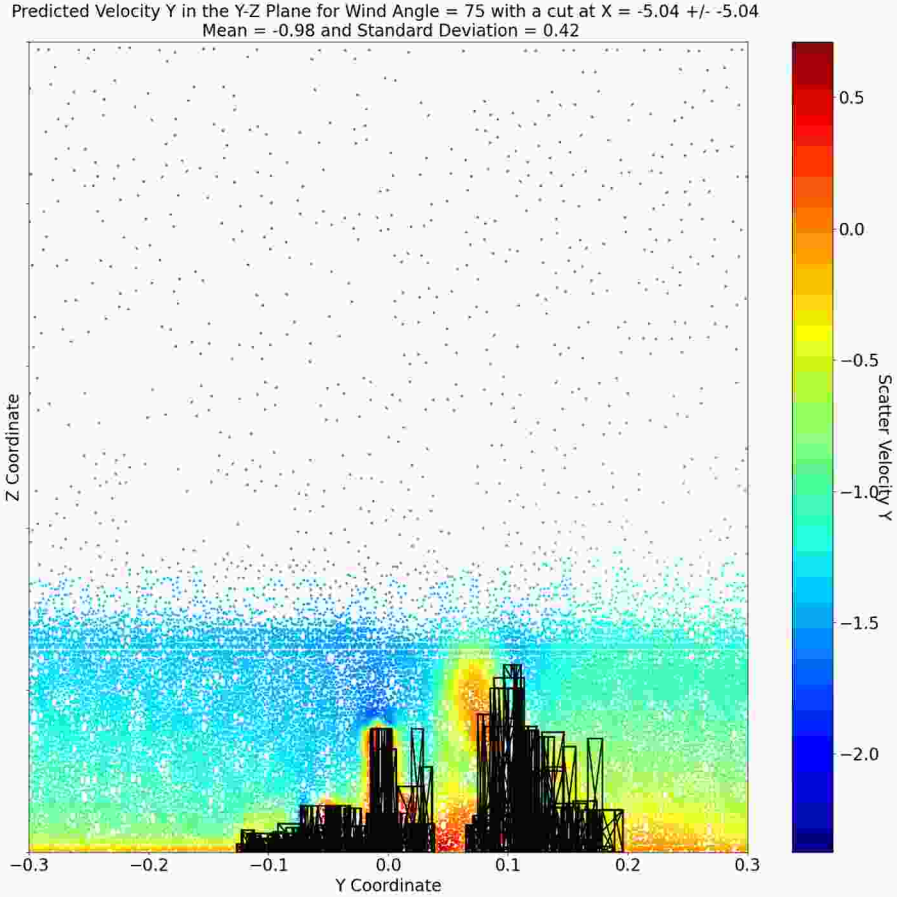
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



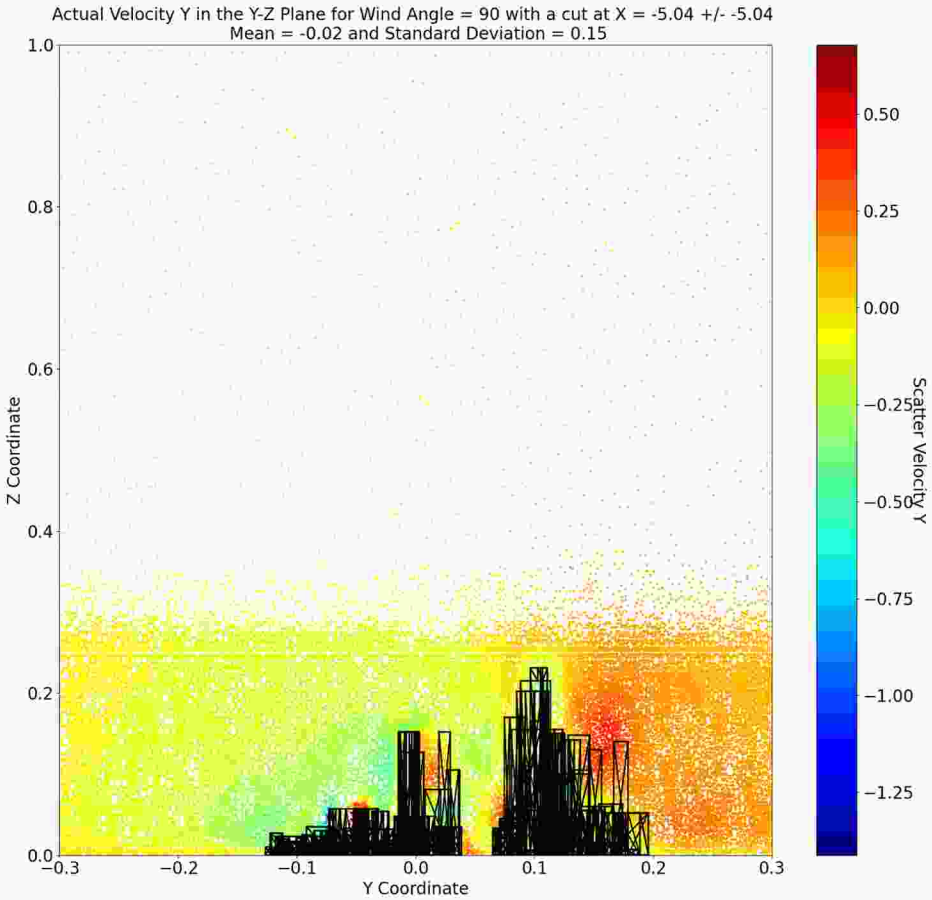


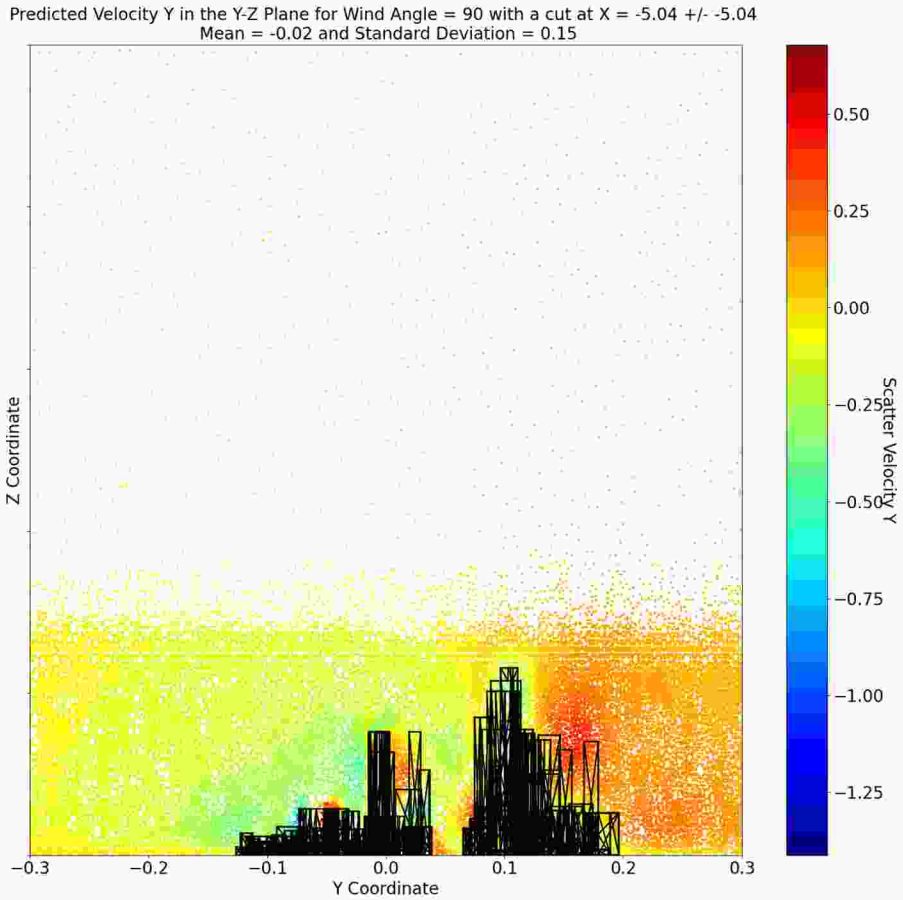
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



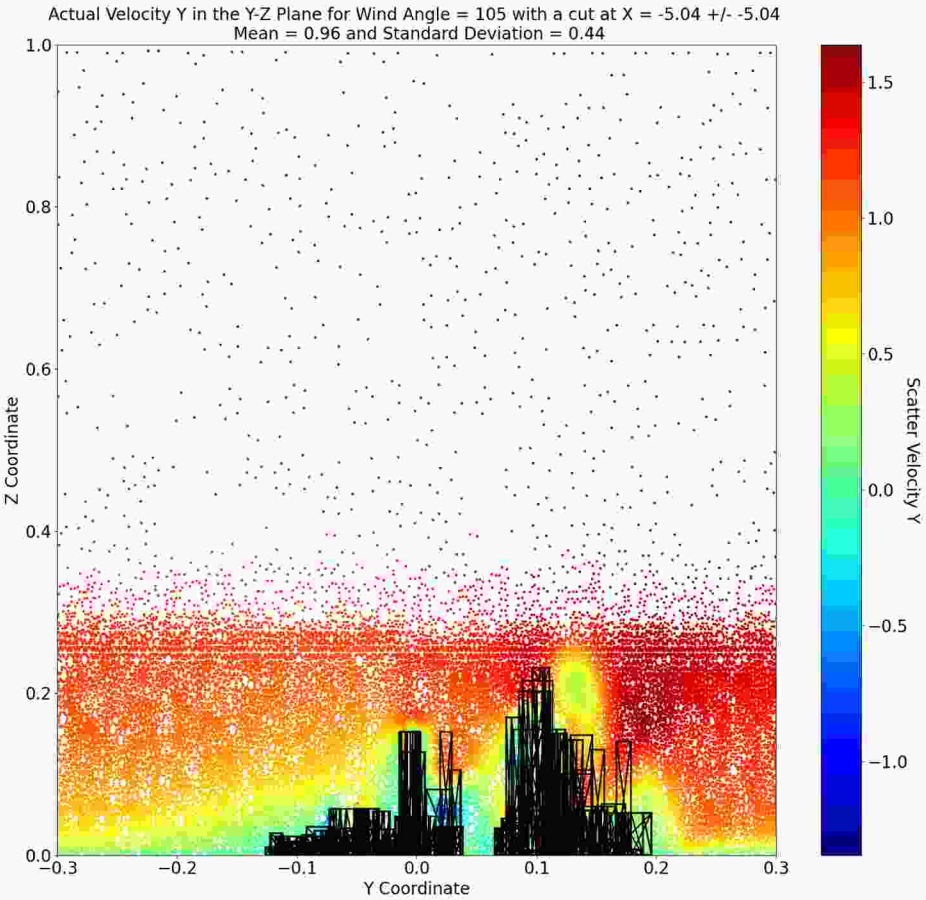


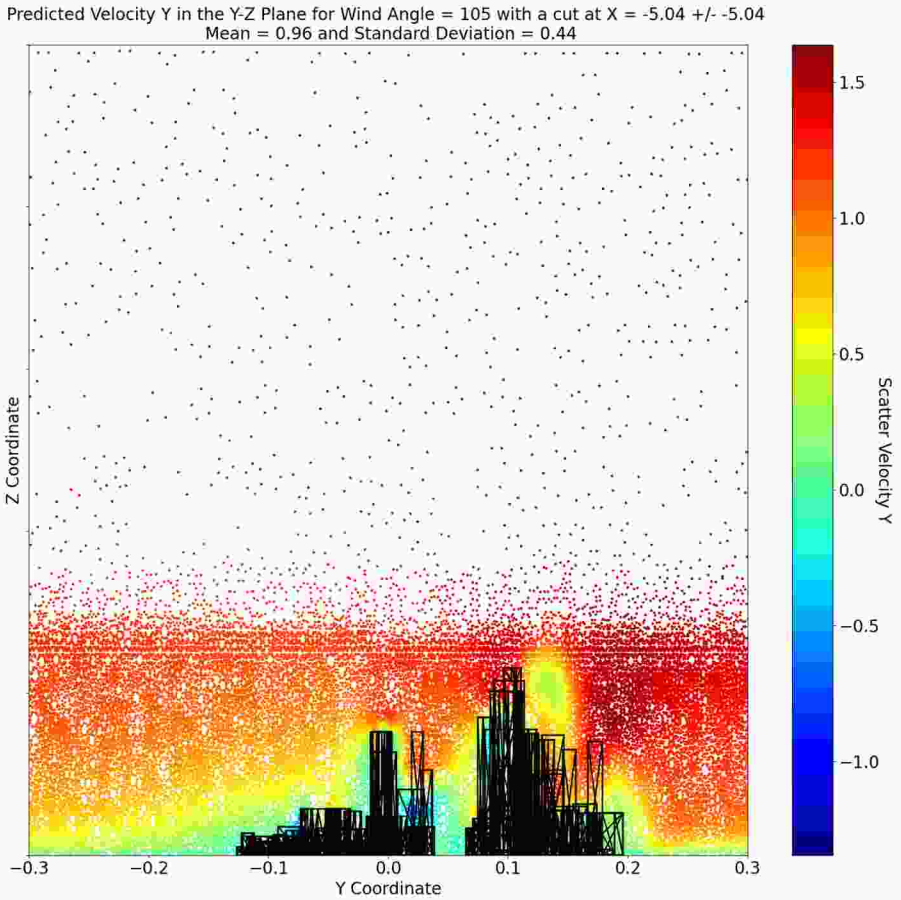
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



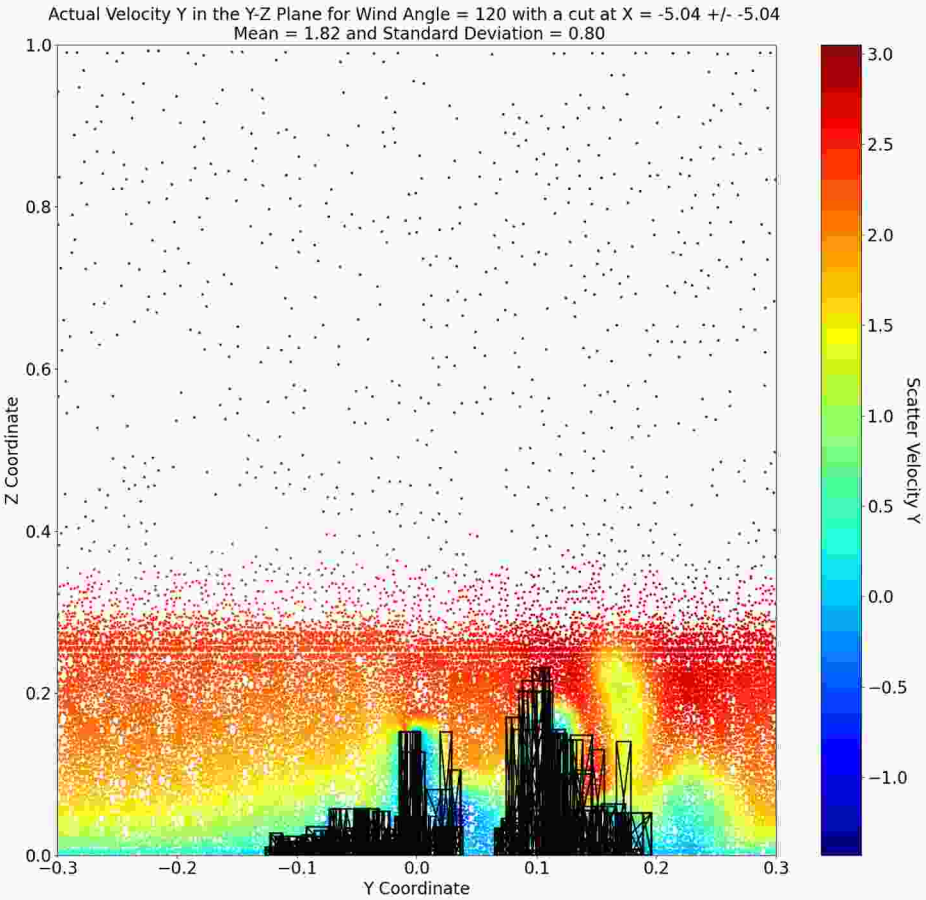


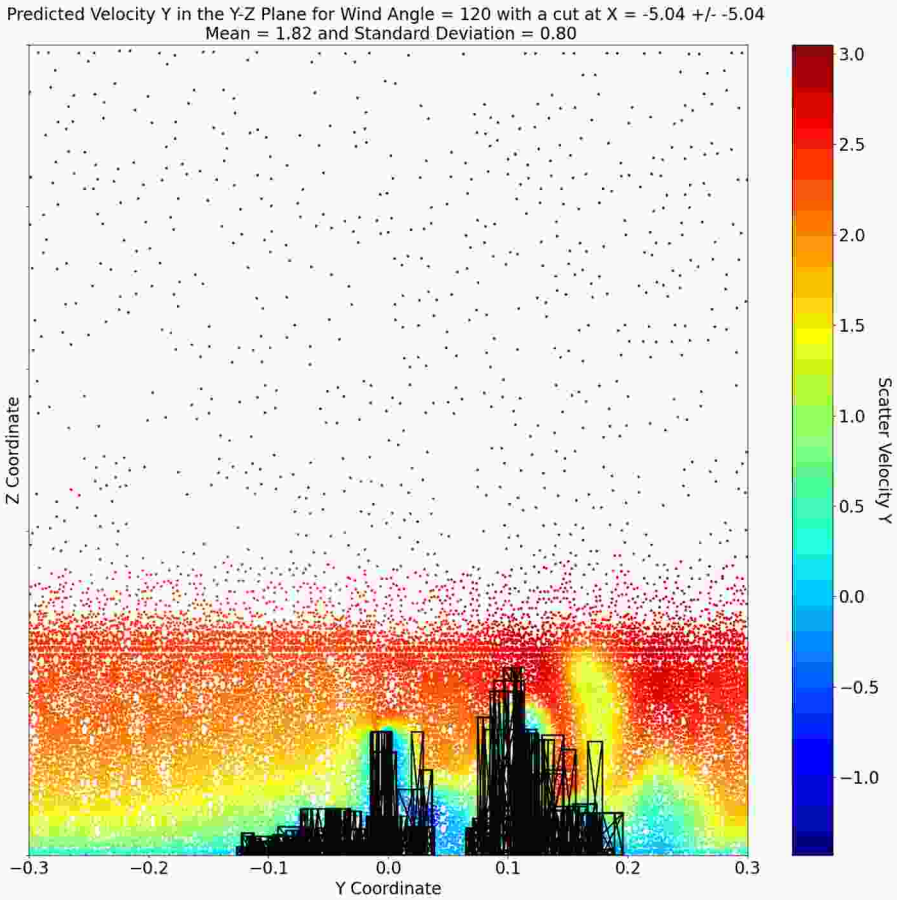
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



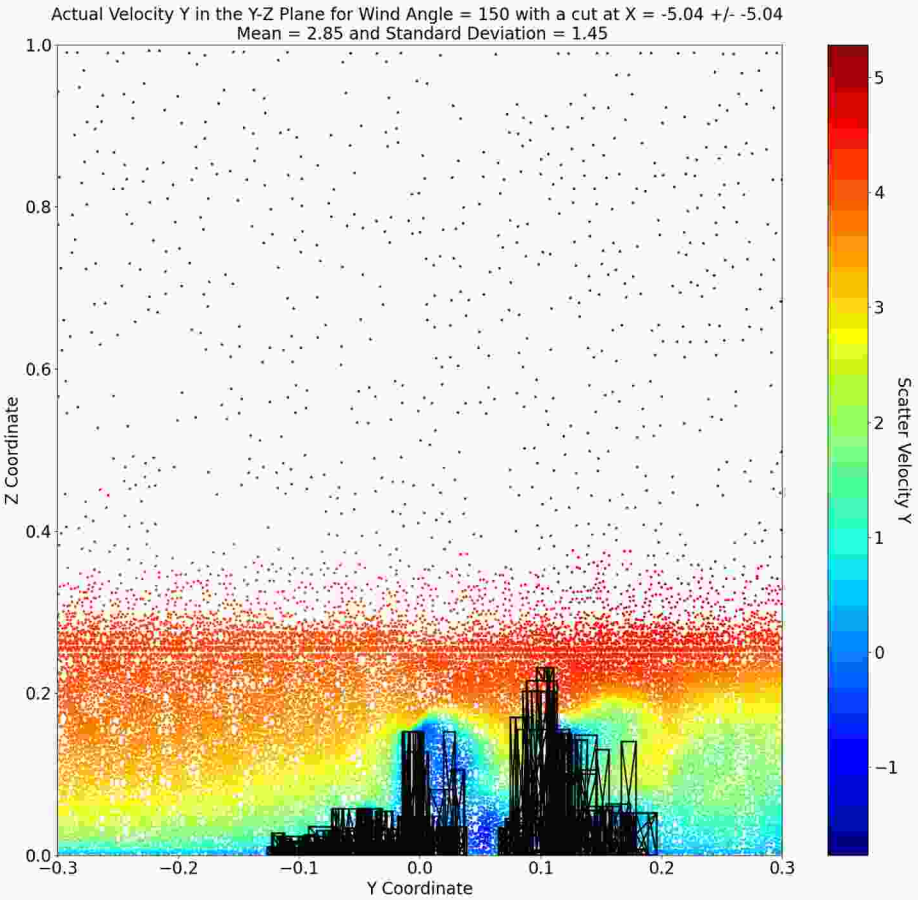


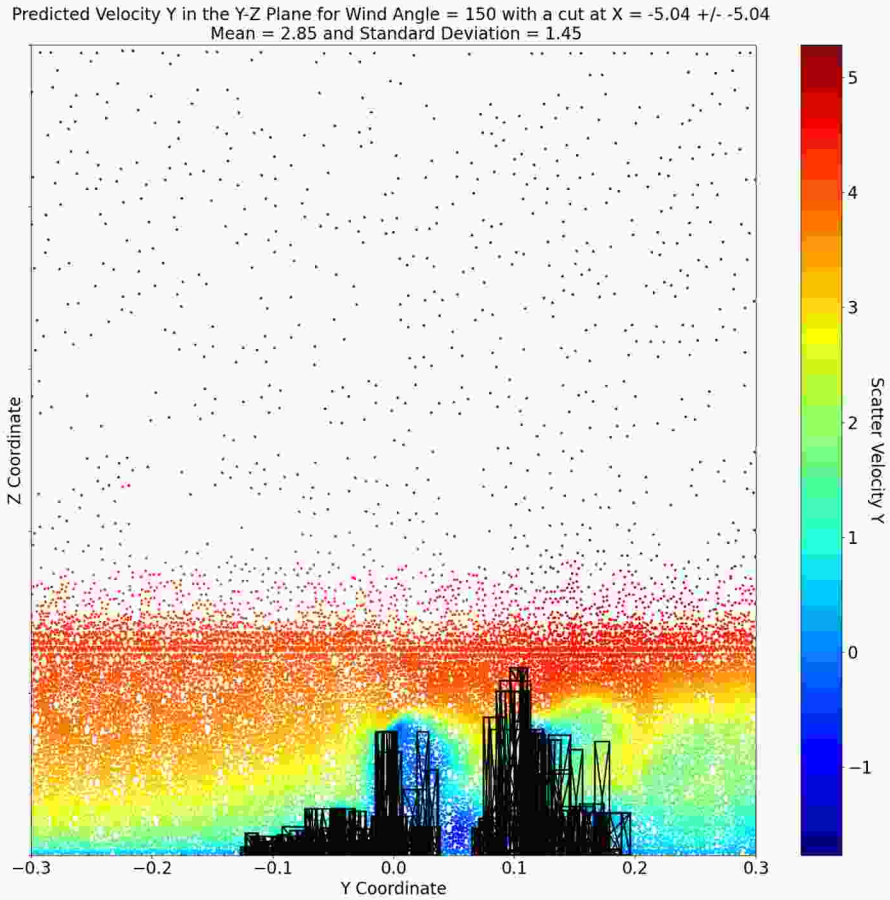
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



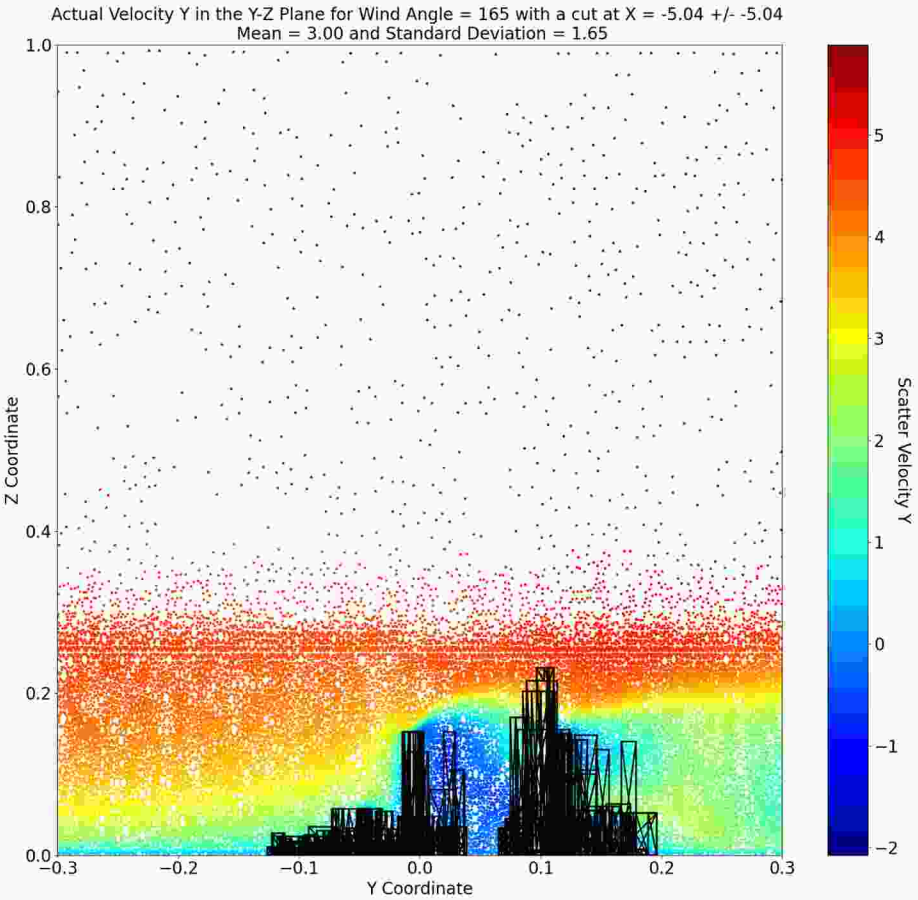


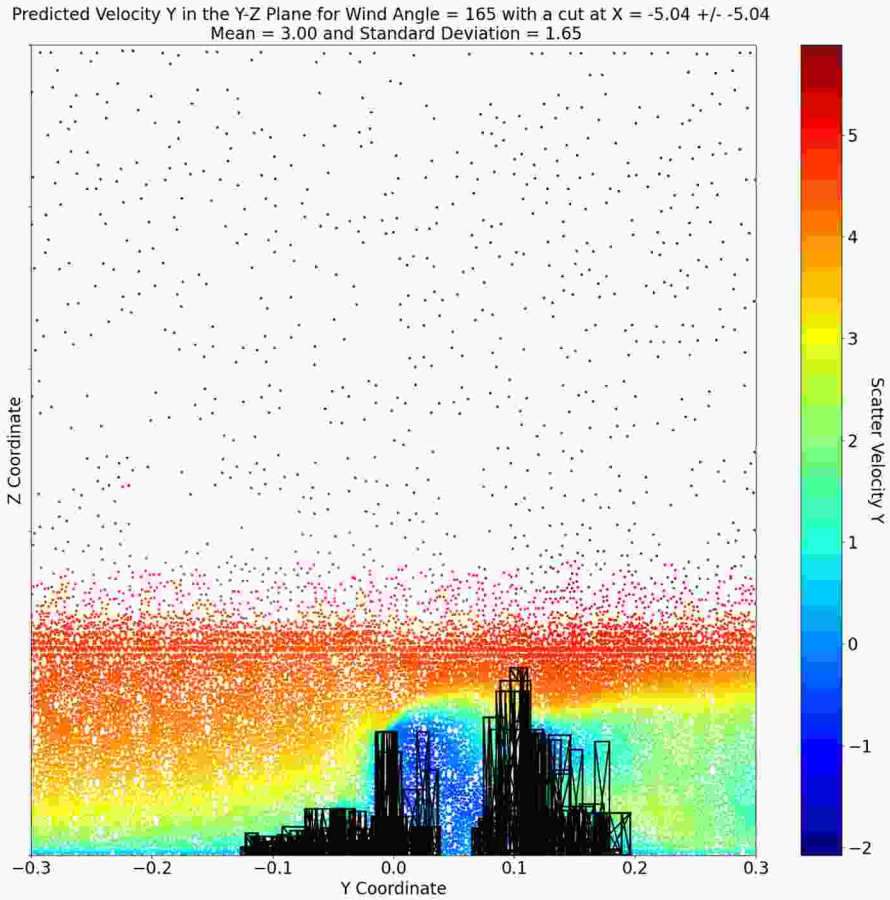
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



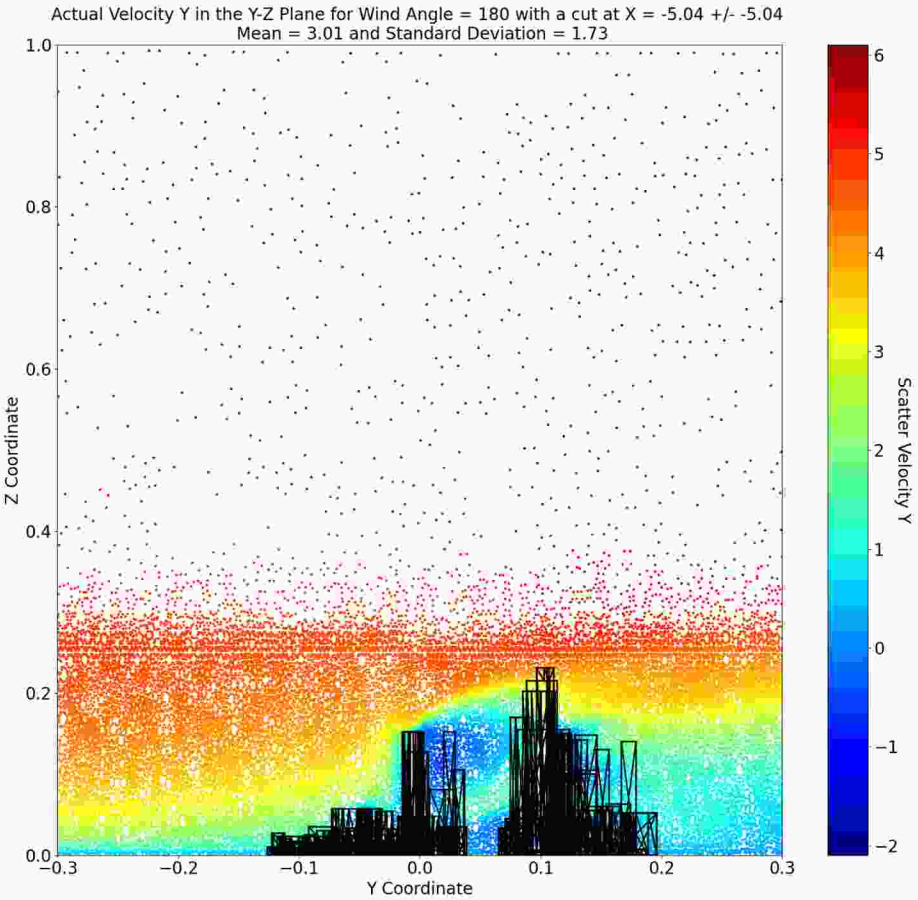


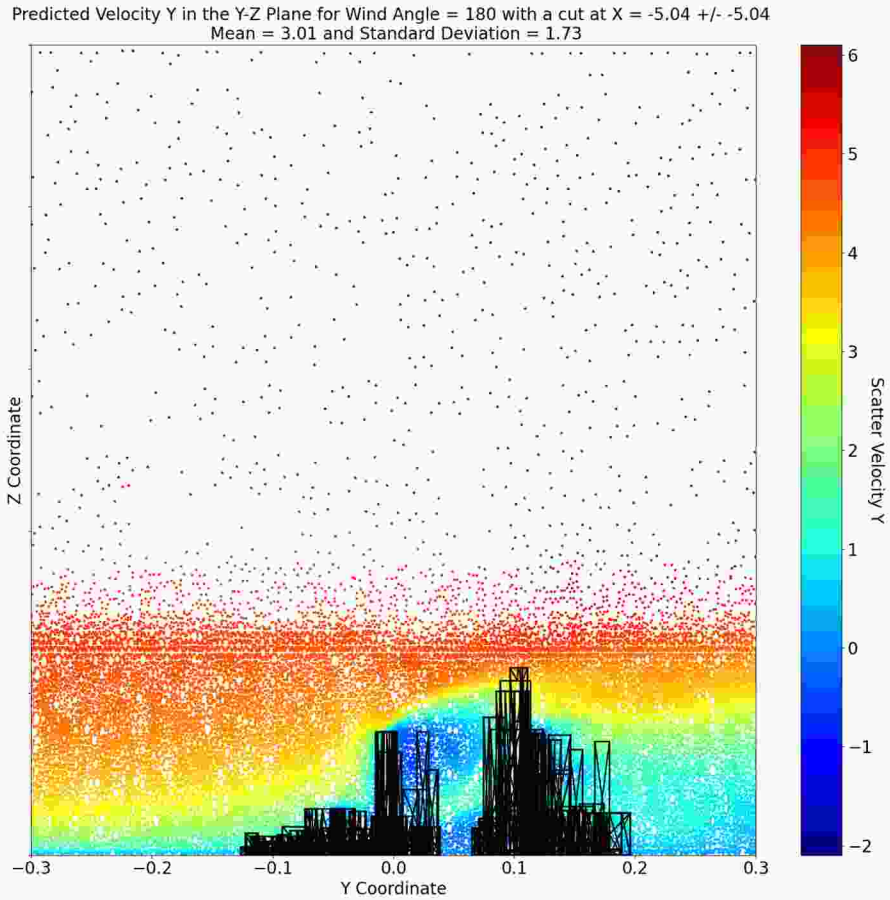
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

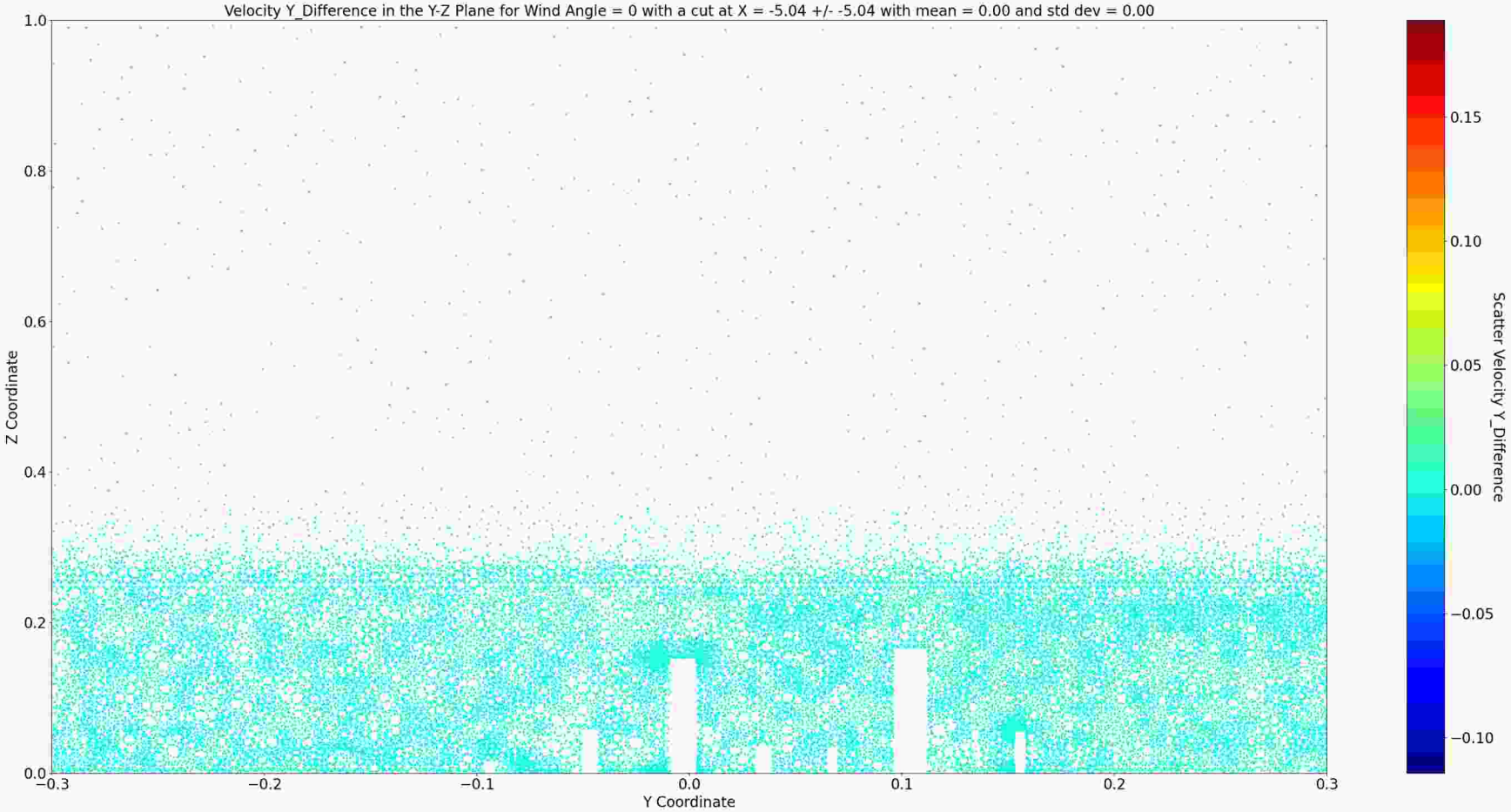


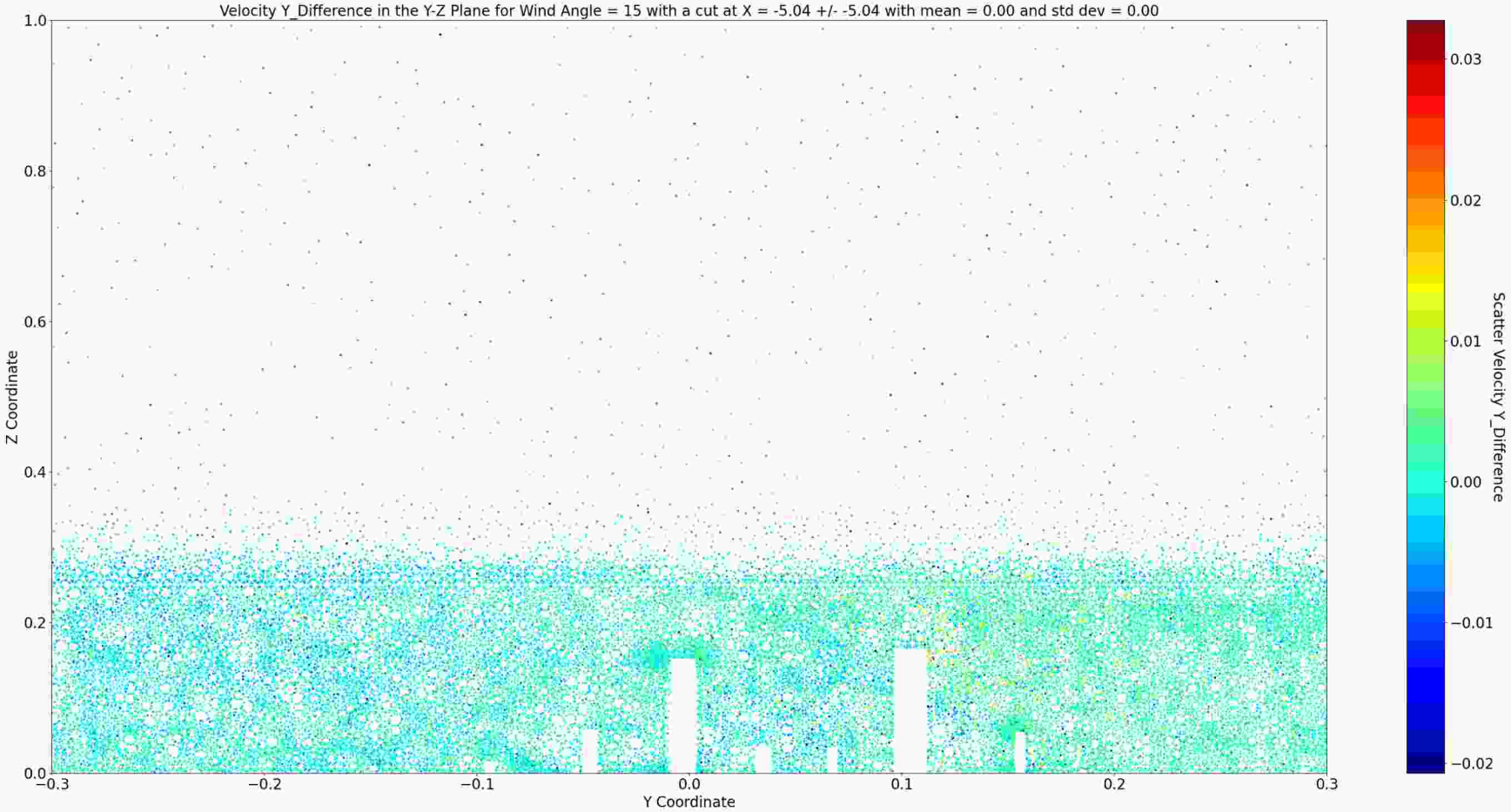


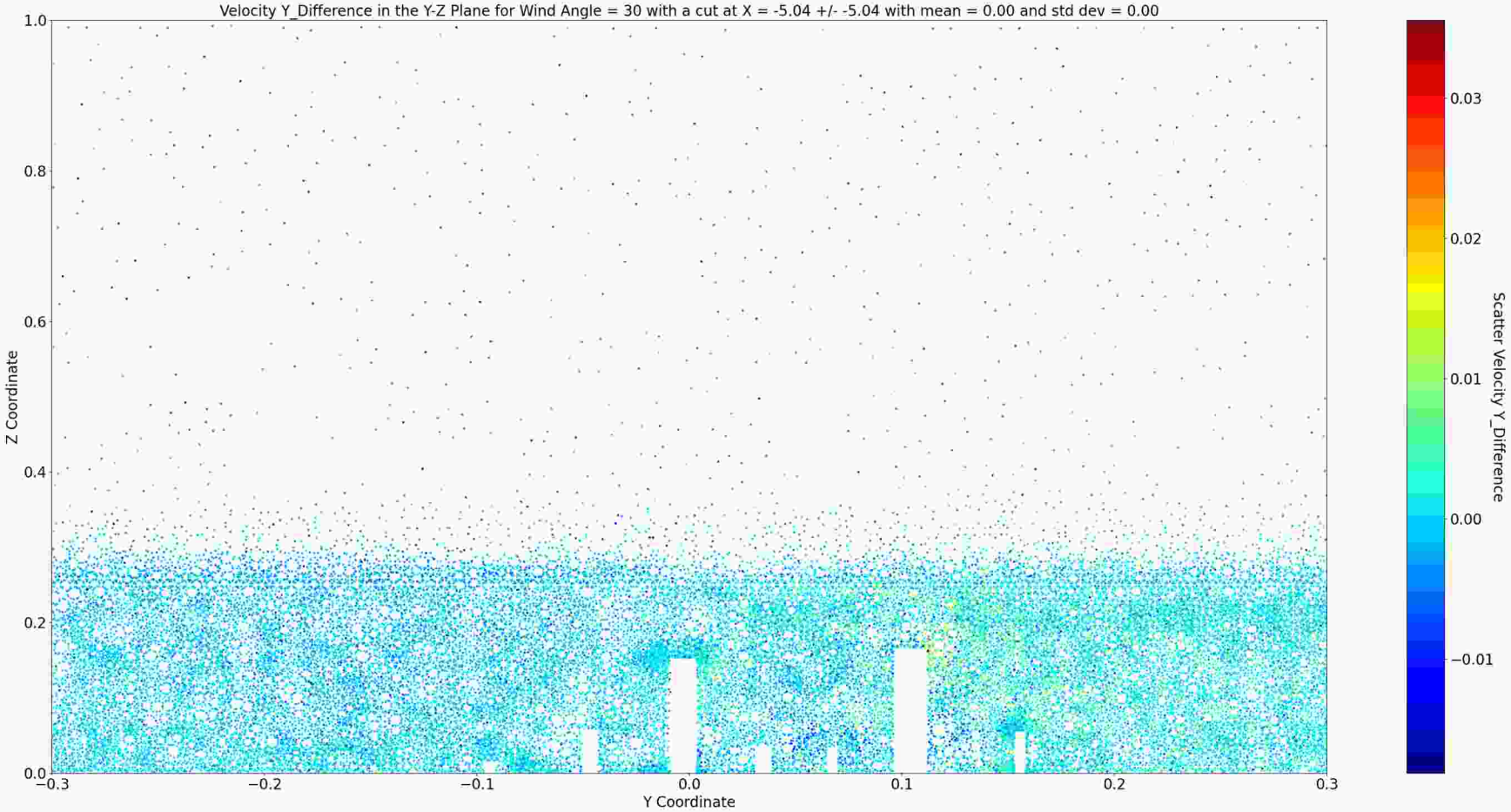
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

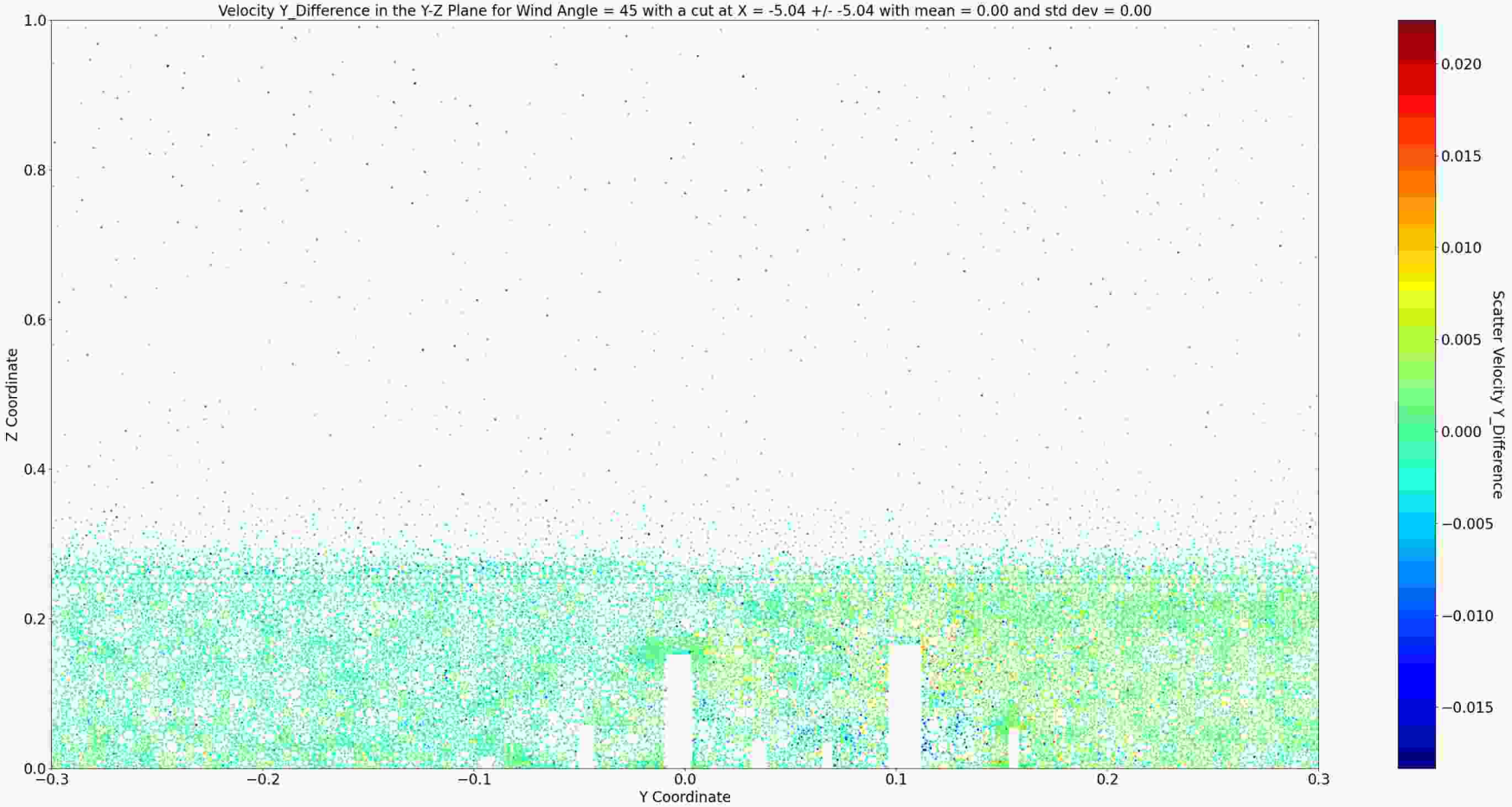


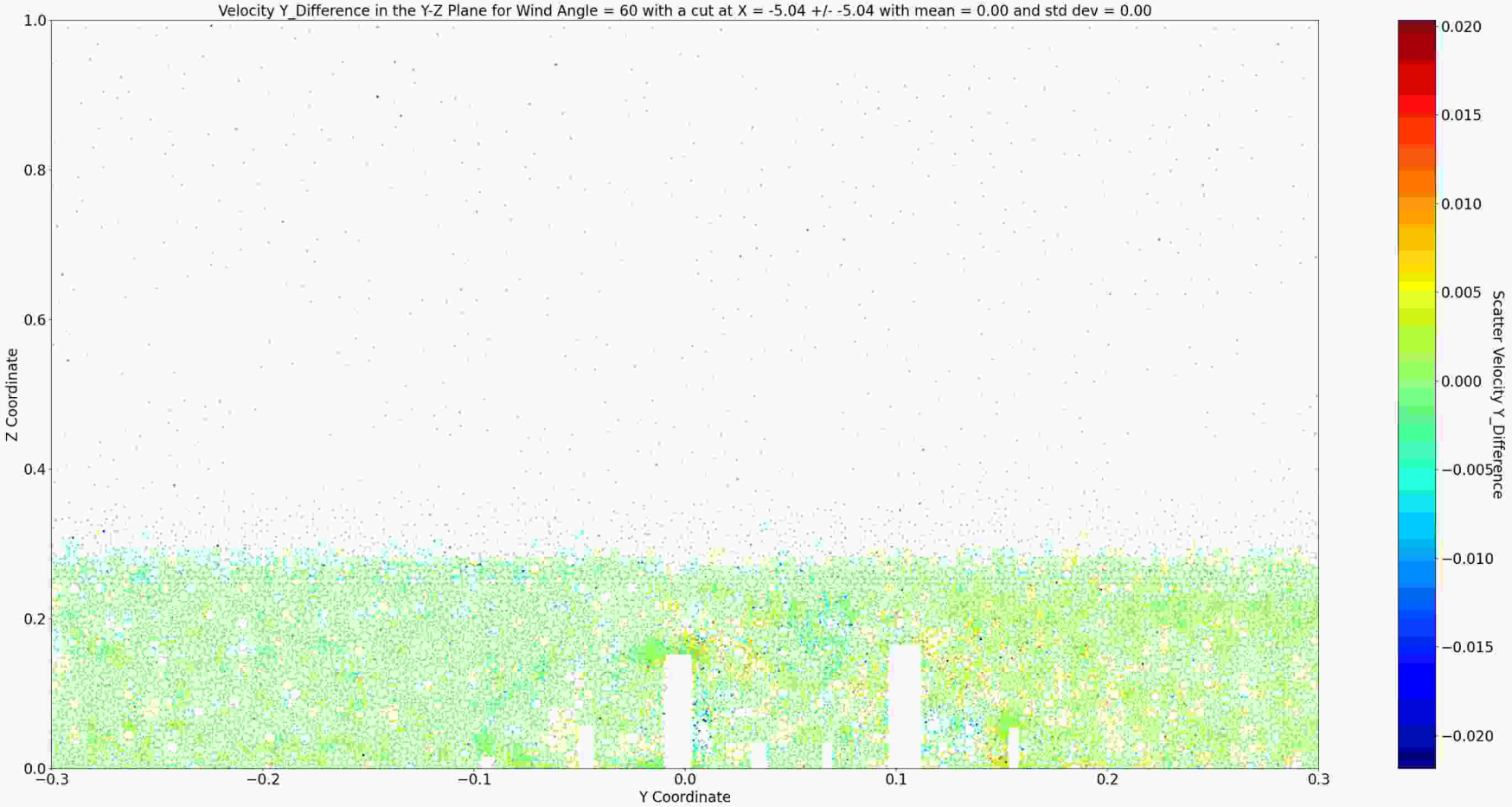


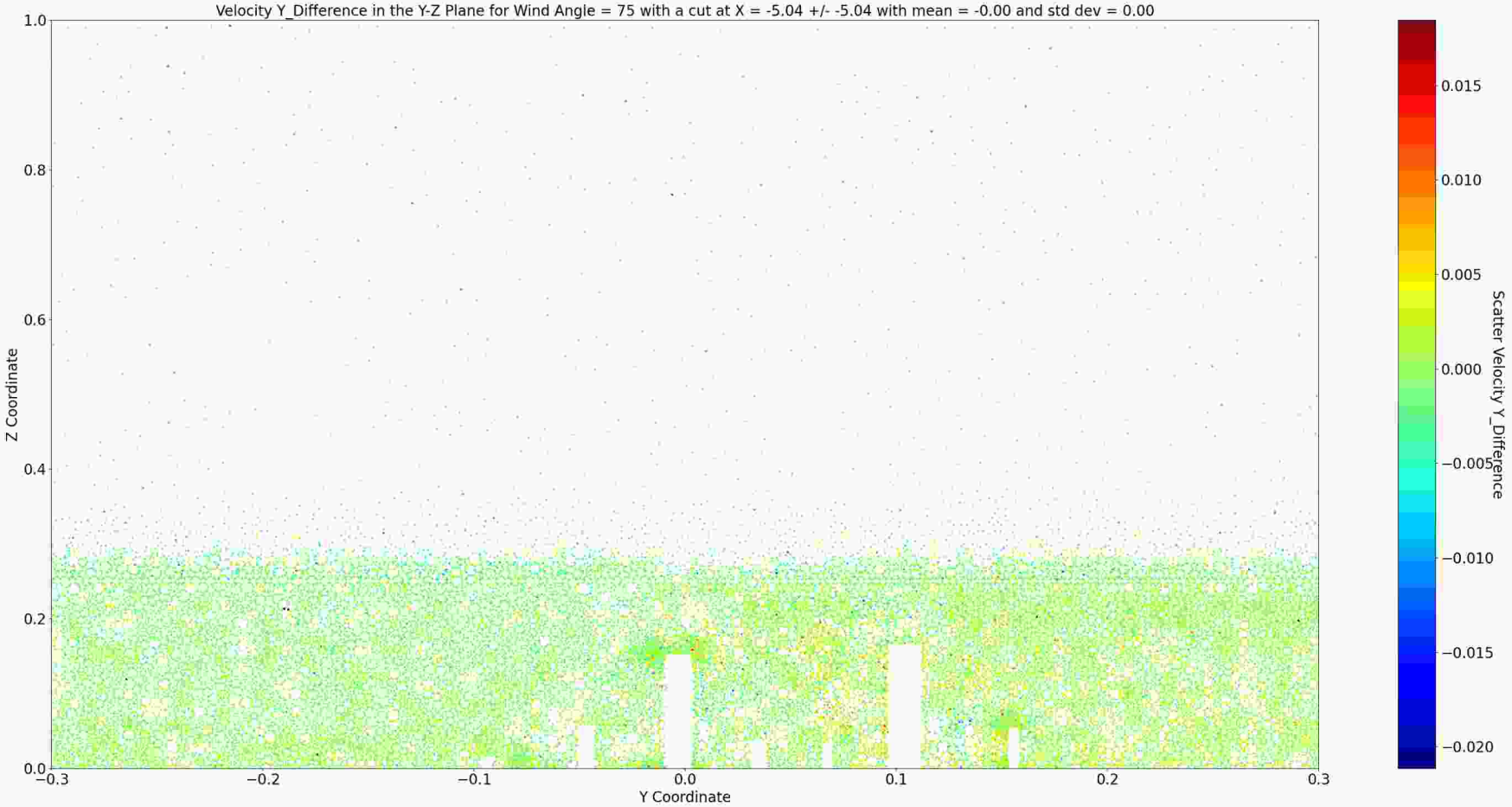

Velocity Y_Difference in the Y-Z Plane for Wind Angle = 0 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.15
0.10
0.05
0.00
−0.05
−0.10

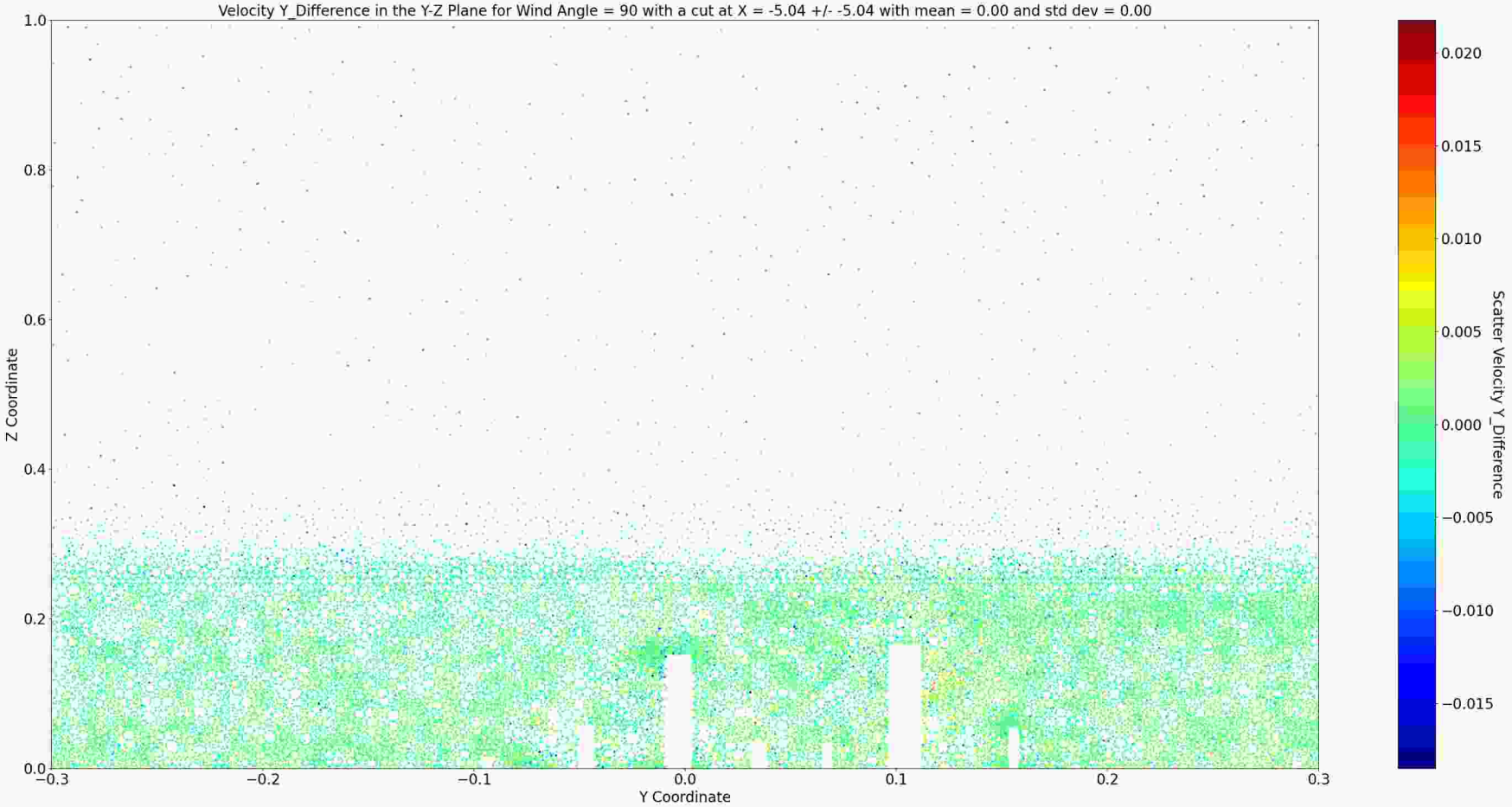

Velocity Y_Difference in the Y-Z Plane for Wind Angle = 15 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.03
0.02
0.01
0.00
−0.01
−0.02

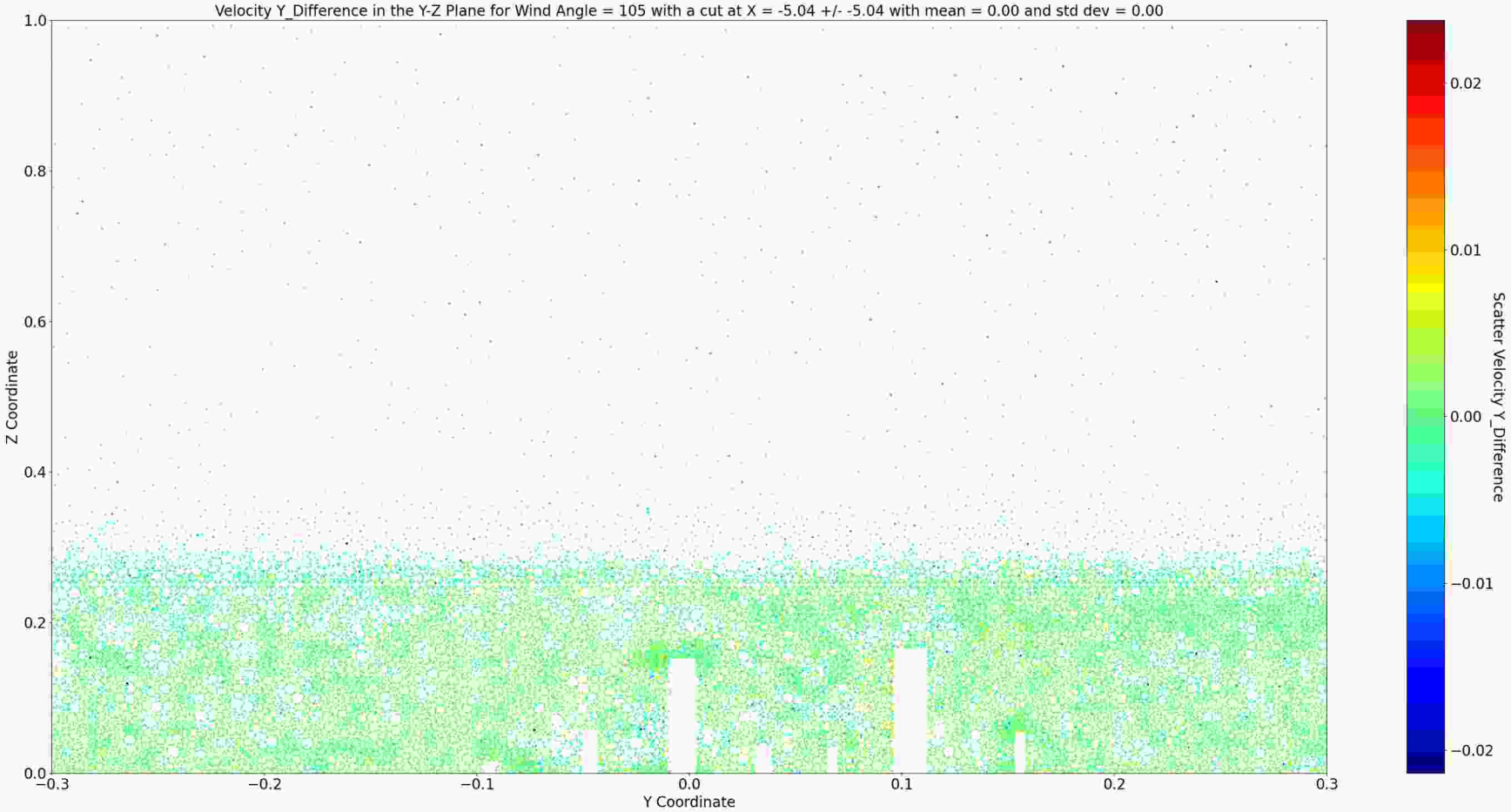

Velocity Y_Difference in the Y-Z Plane for Wind Angle = 30 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.03
0.02
0.01
0.00
−0.01

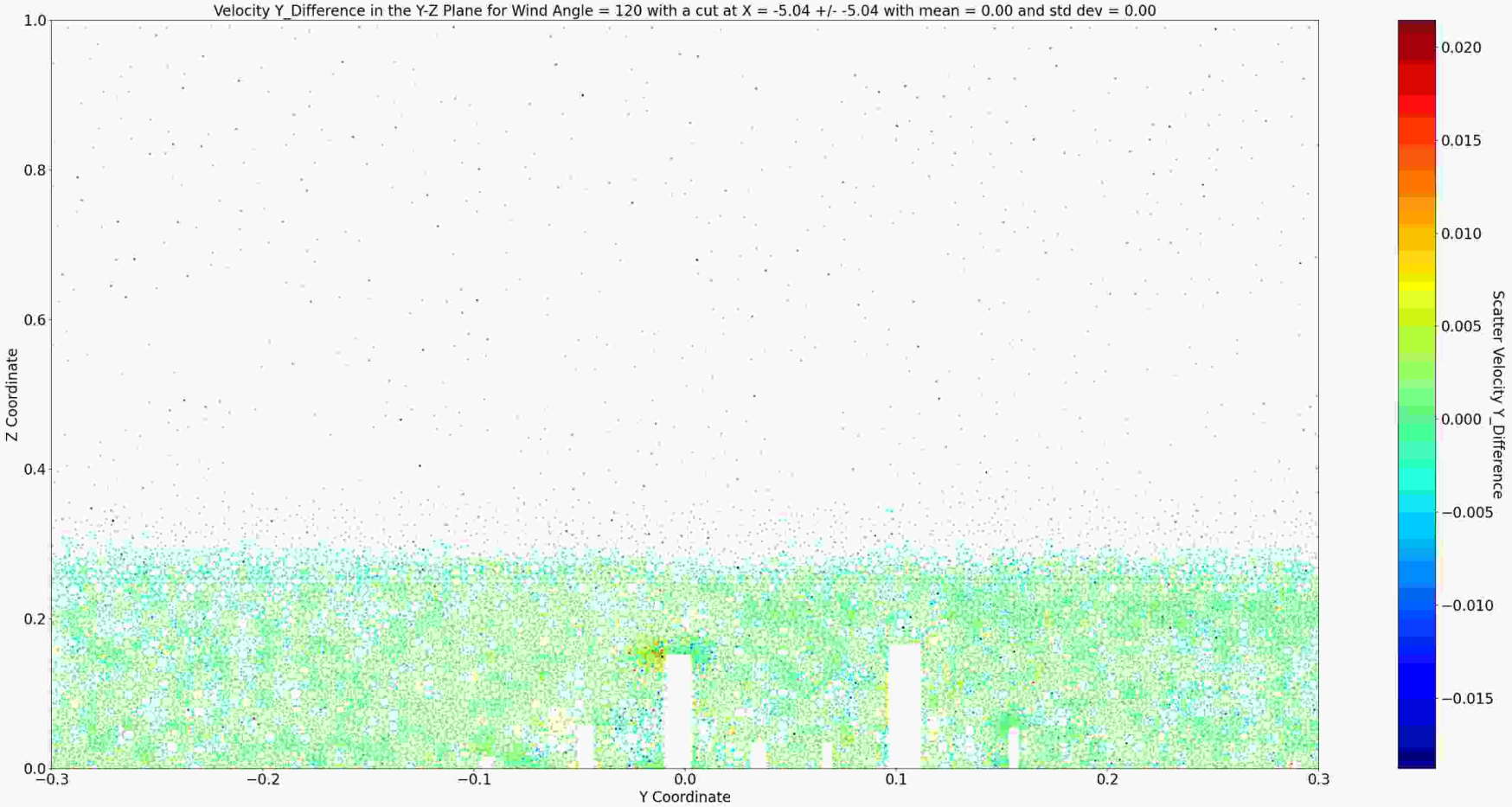

Velocity Y_Difference in the Y-Z Plane for Wind Angle = 45 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015

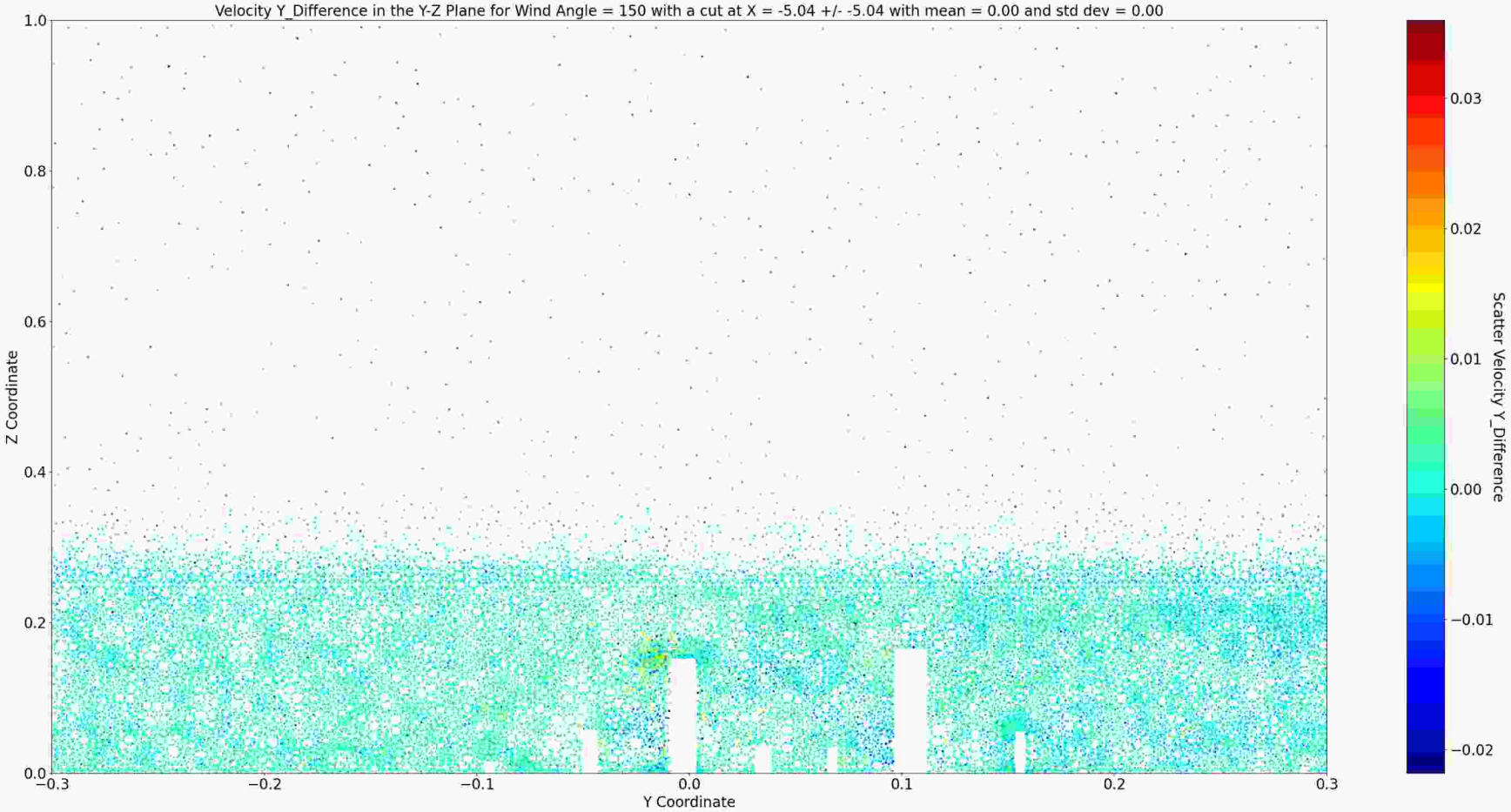

Velocity Y_Difference in the Y-Z Plane for Wind Angle = 60 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015
−0.020

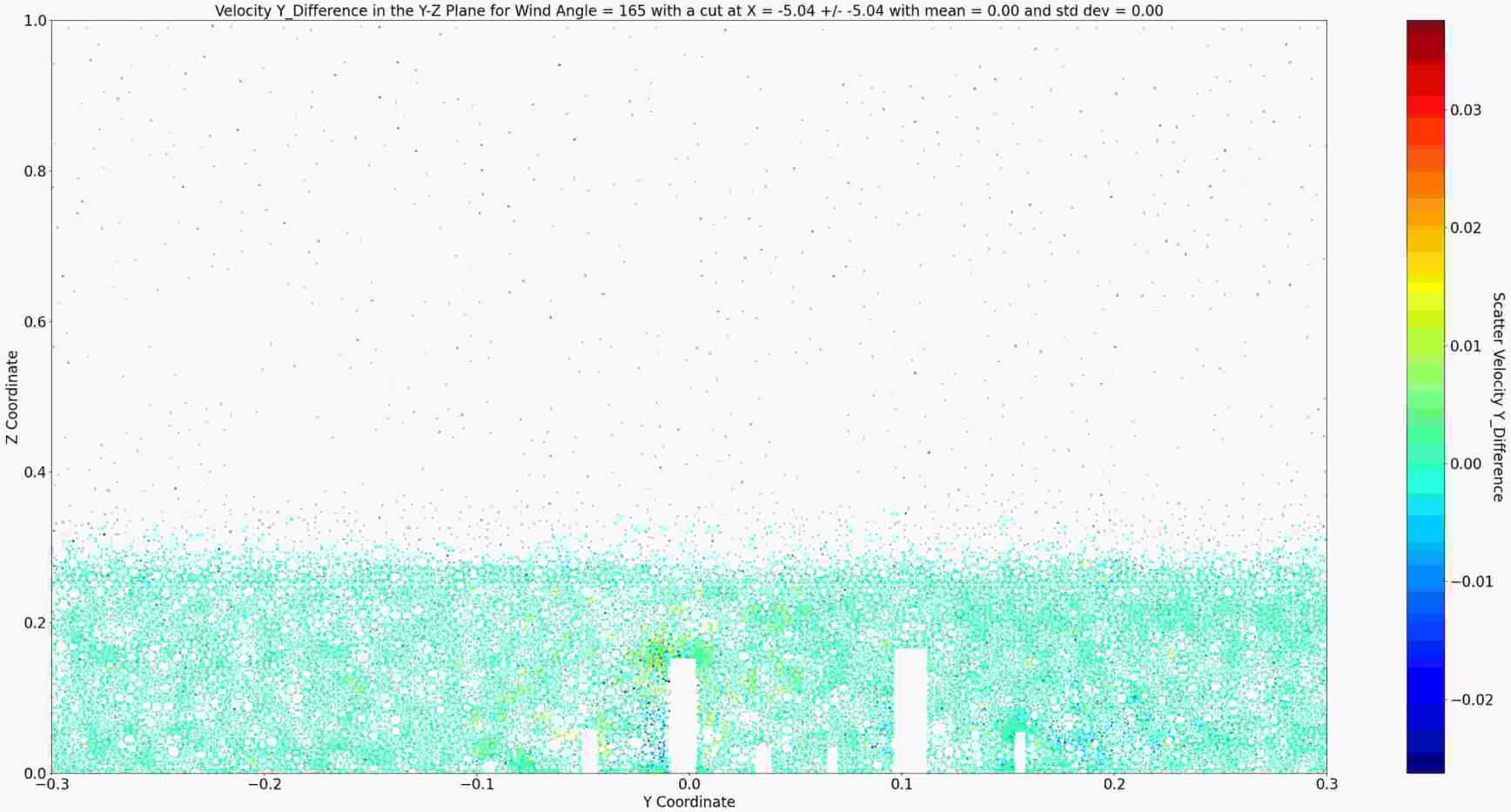

Velocity Y_Difference in the Y-Z Plane for Wind Angle = 75 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015
−0.020

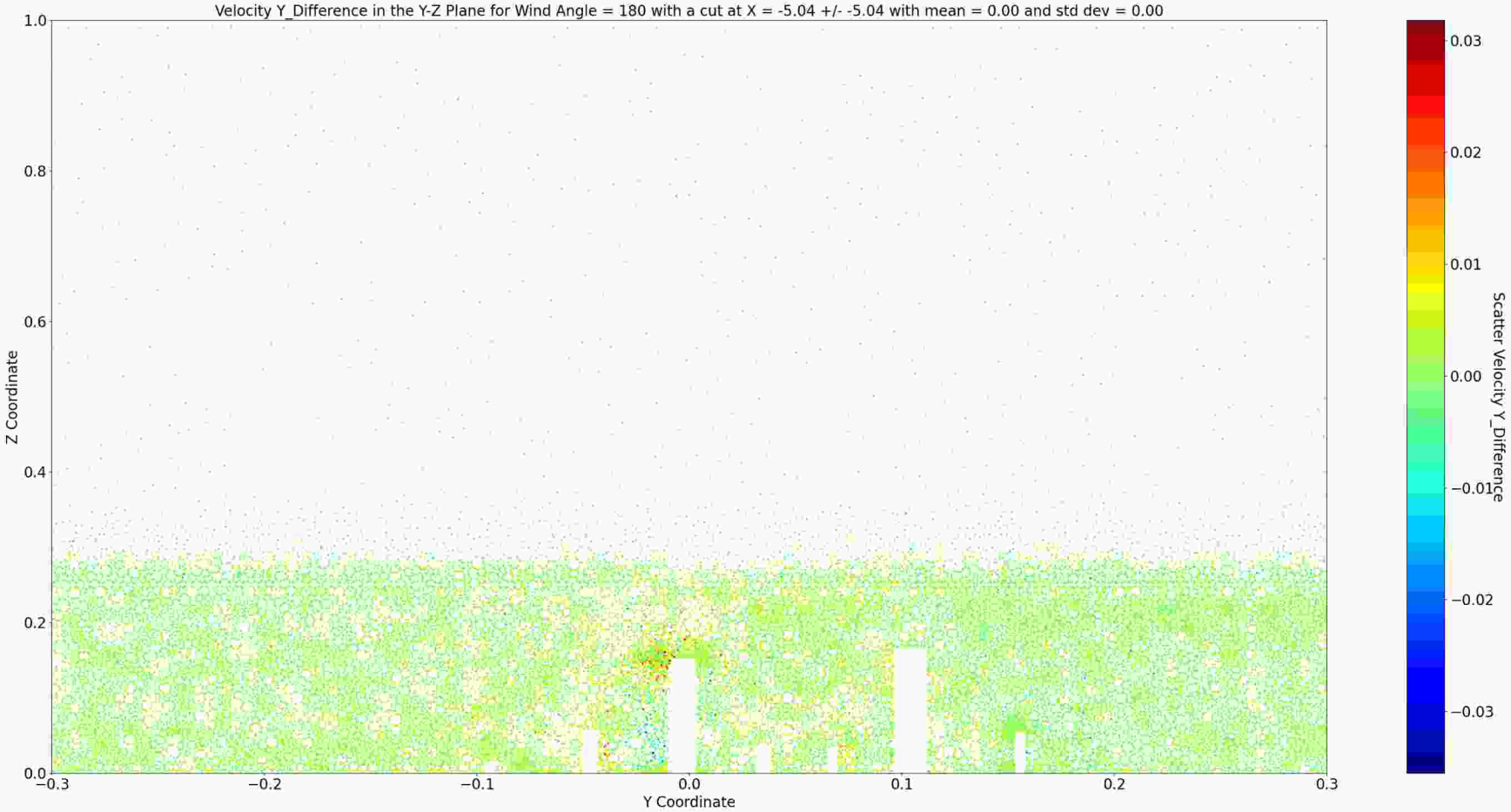

Velocity Y_Difference in the Y-Z Plane for Wind Angle = 90 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015


Velocity Y_Difference in the Y-Z Plane for Wind Angle = 105 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.02
0.01
0.00
−0.01
−0.02

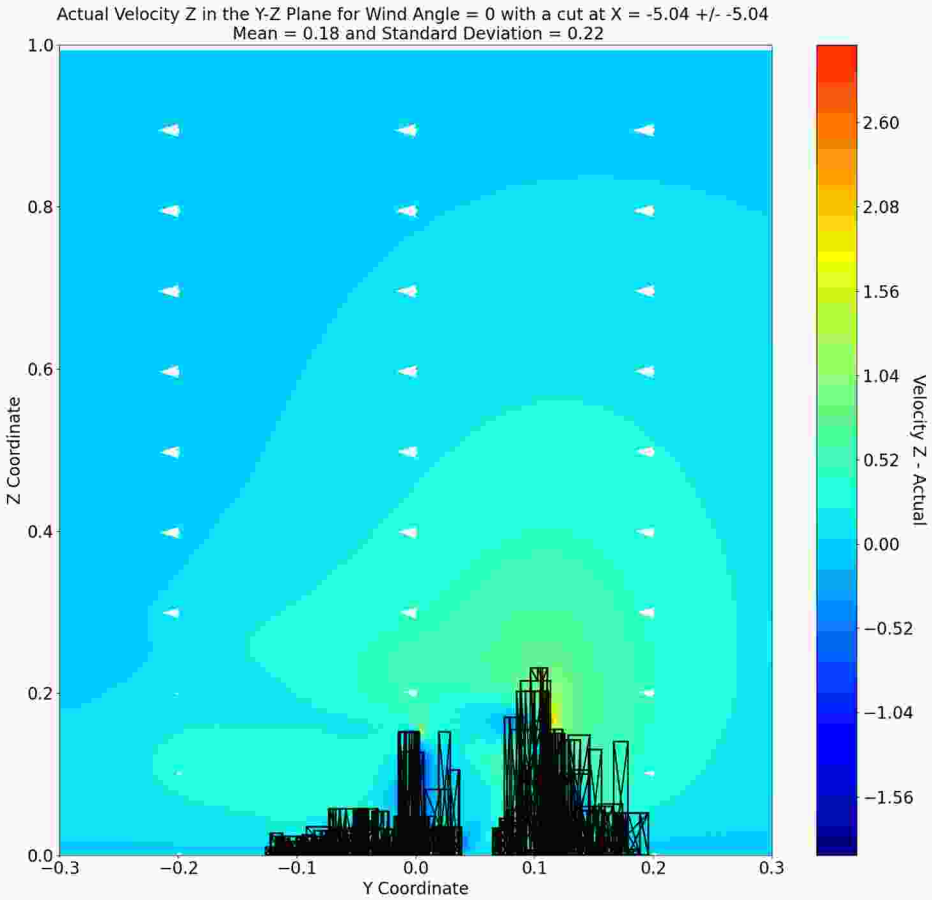

Velocity Y_Difference in the Y-Z Plane for Wind Angle = 120 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
−0.015

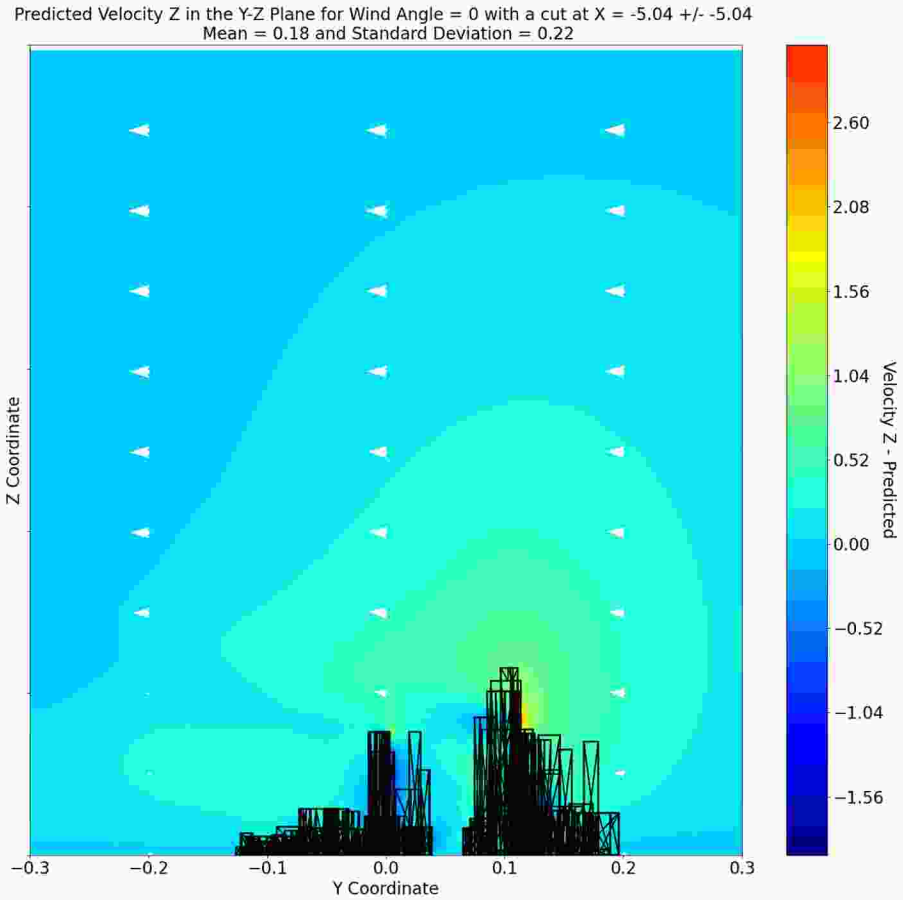

Velocity Y_Difference in the Y-Z Plane for Wind Angle = 150 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.03
0.02
0.01
0.00
−0.01
−0.02


Velocity Y_Difference in the Y-Z Plane for Wind Angle = 165 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.03
0.02
0.01
0.00
−0.01
−0.02

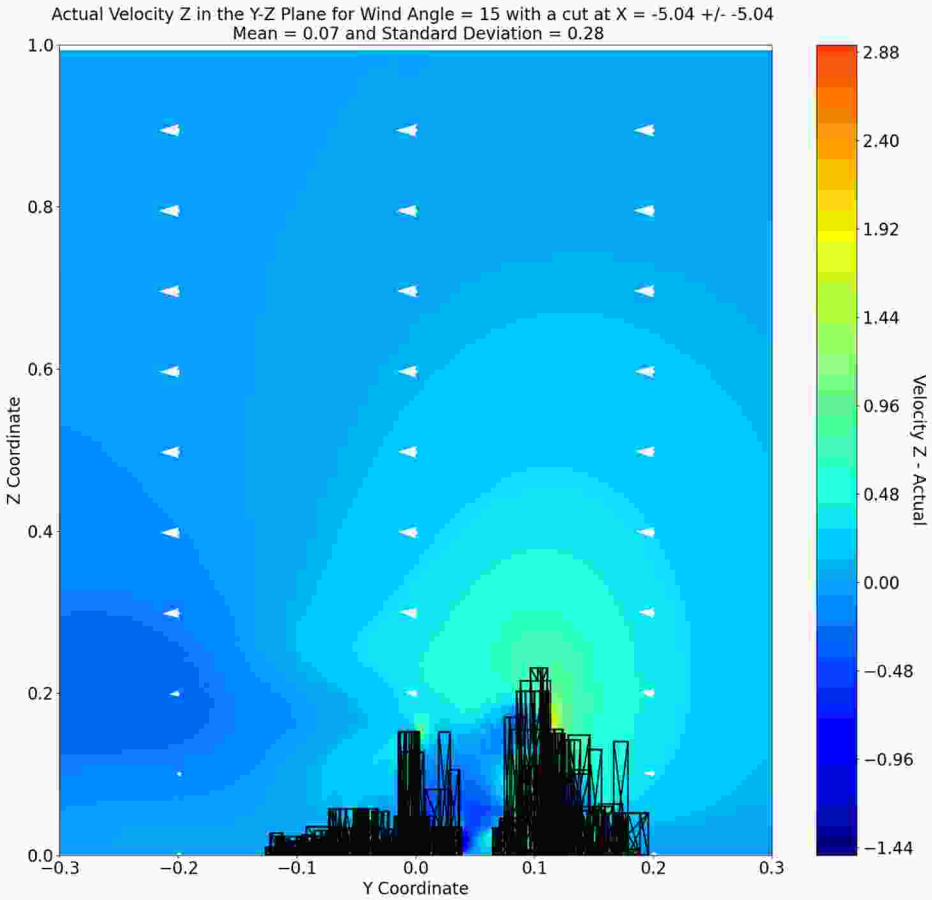

Velocity Y_Difference in the Y-Z Plane for Wind Angle = 180 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.03
0.02
0.01
0.00
−0.01
−0.02
−0.03

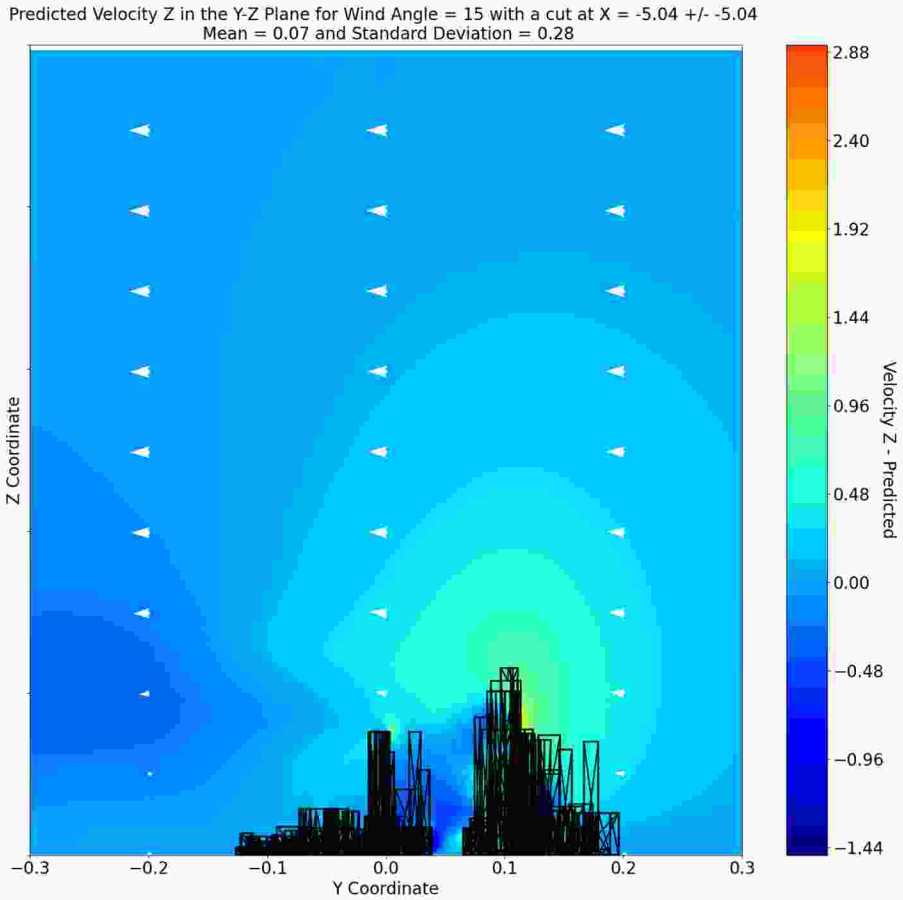
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



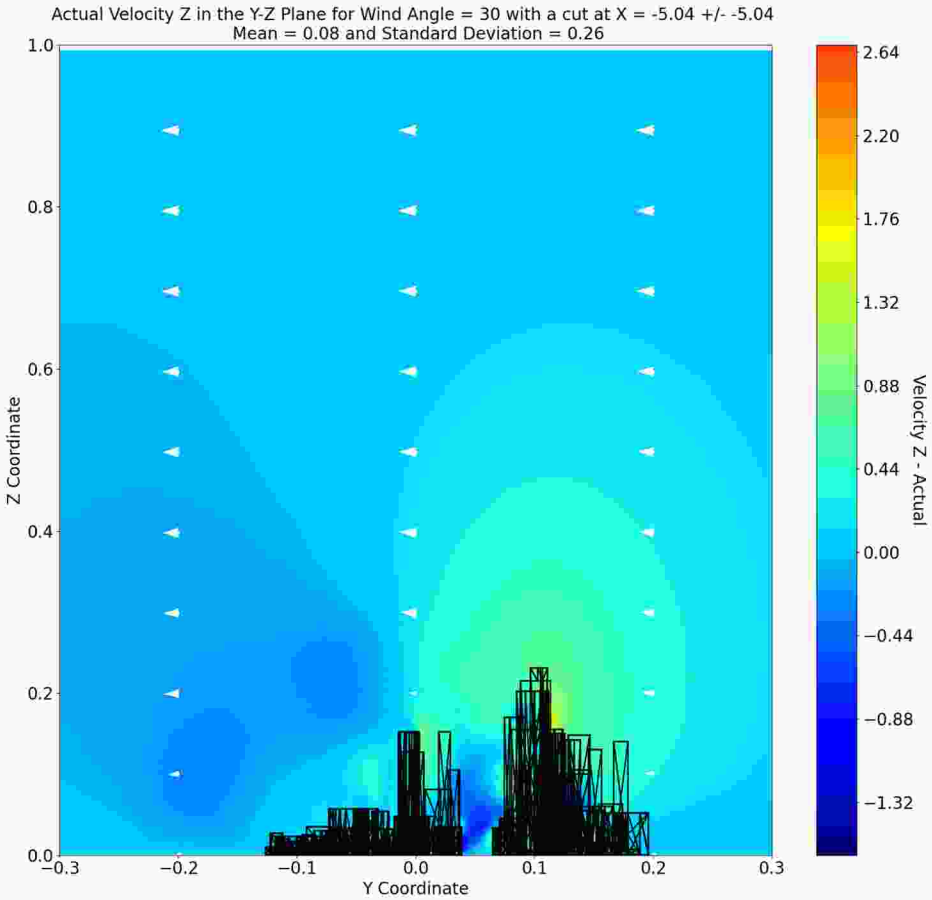


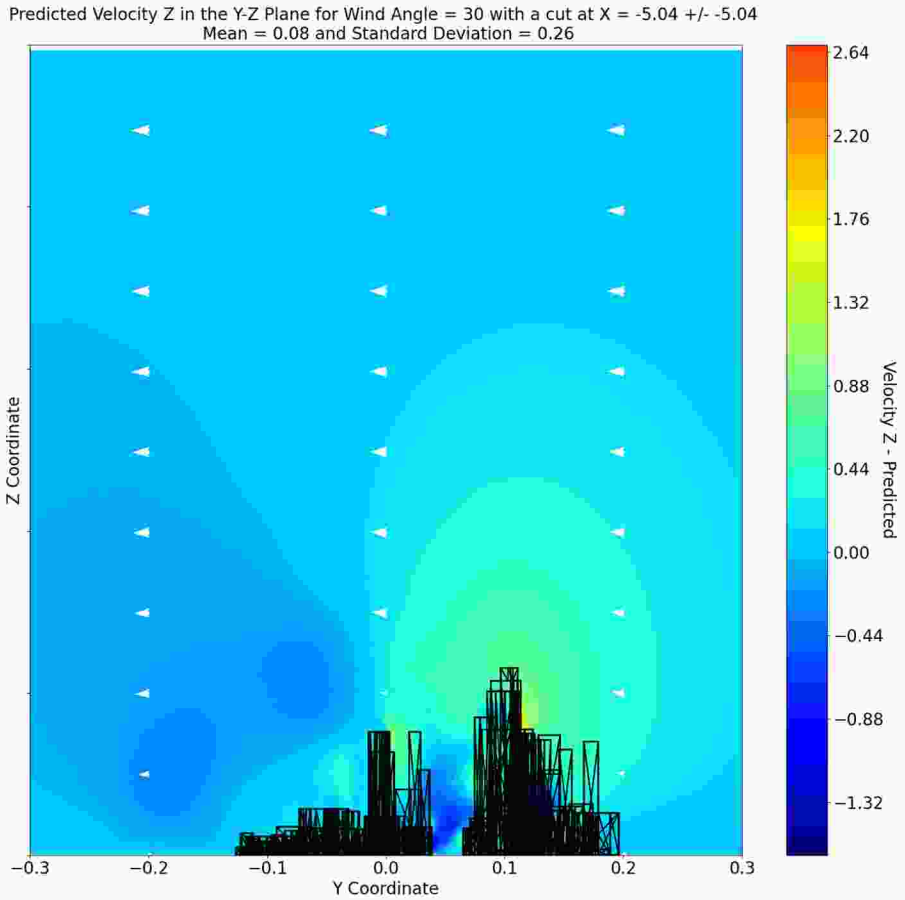
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



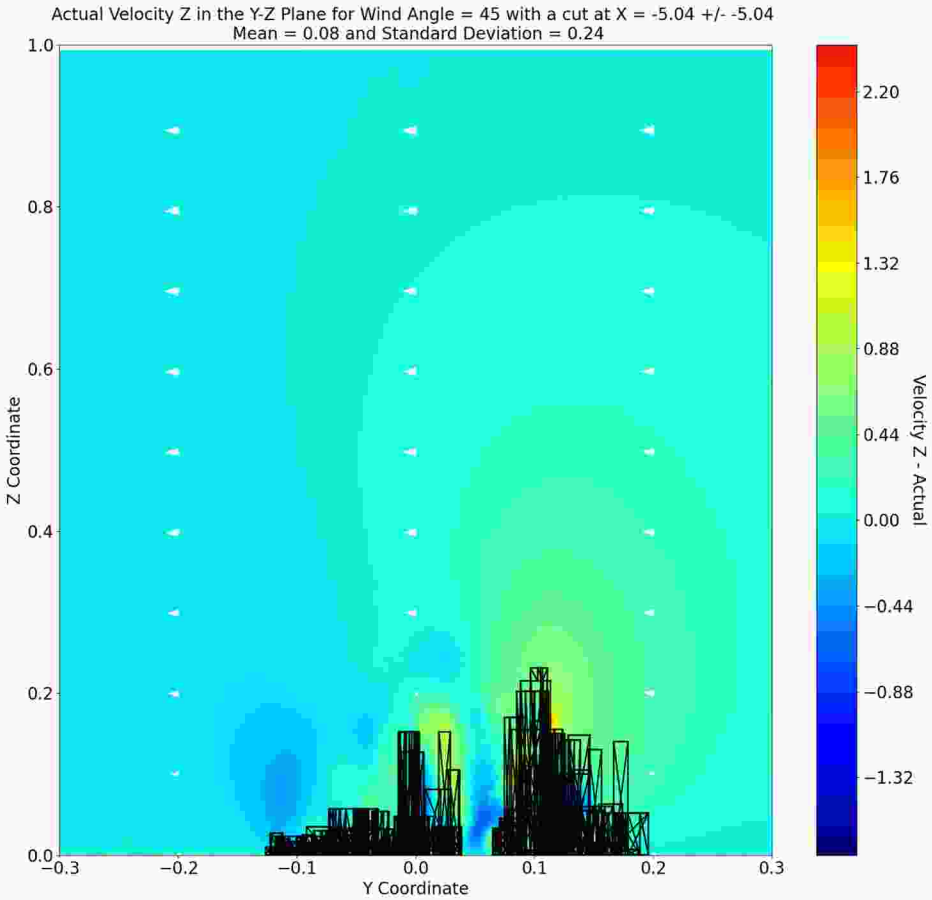


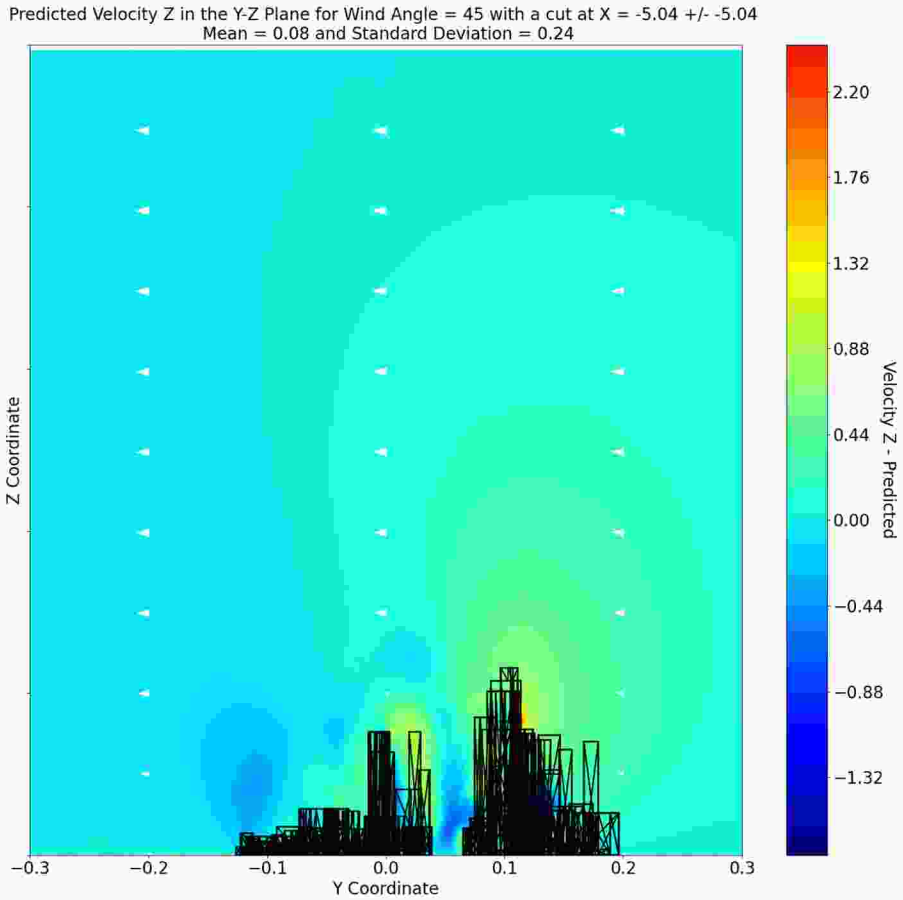
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



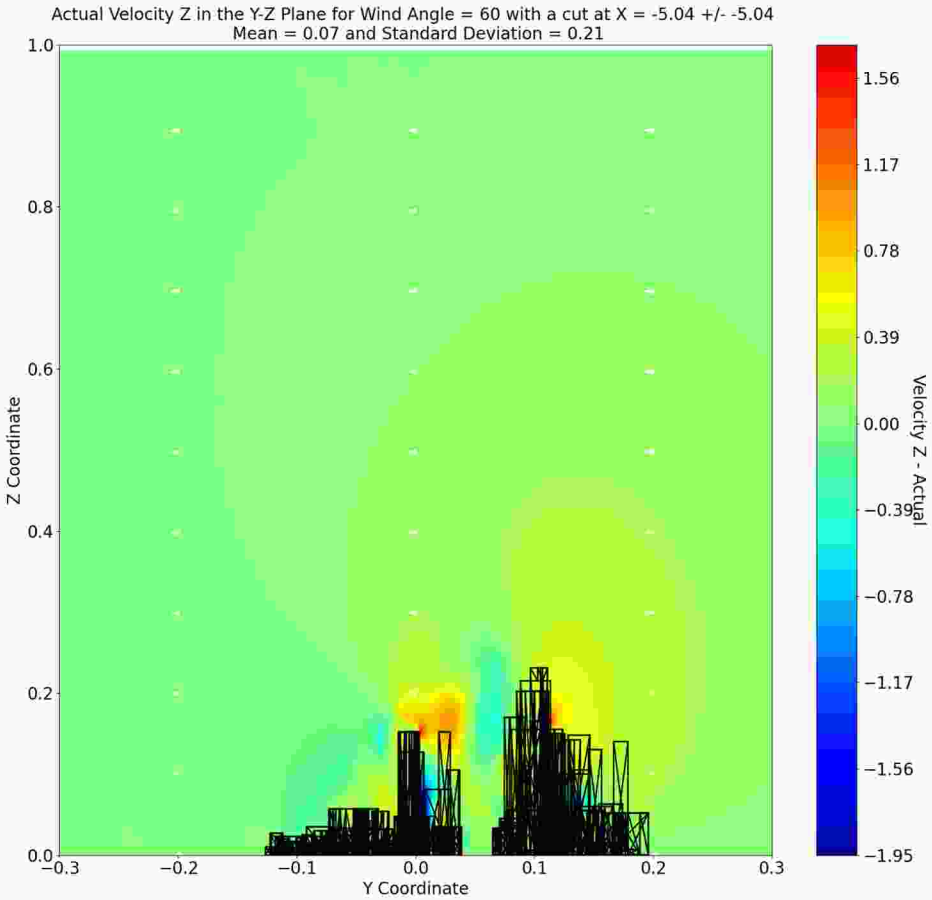


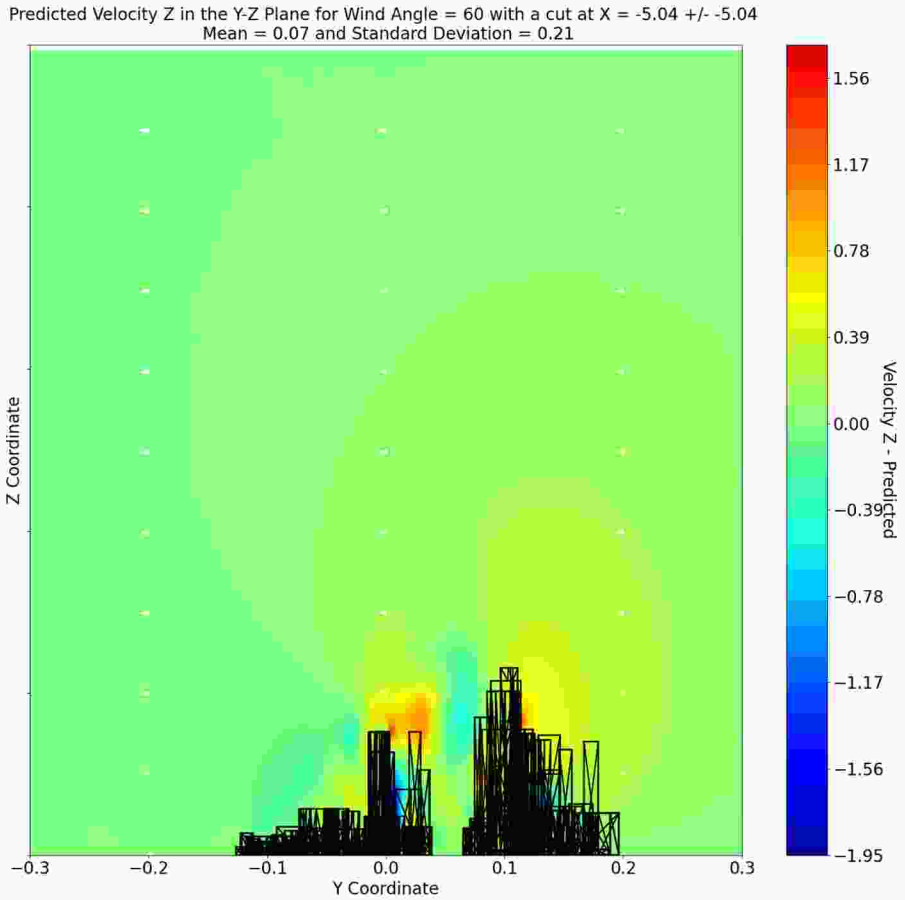
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



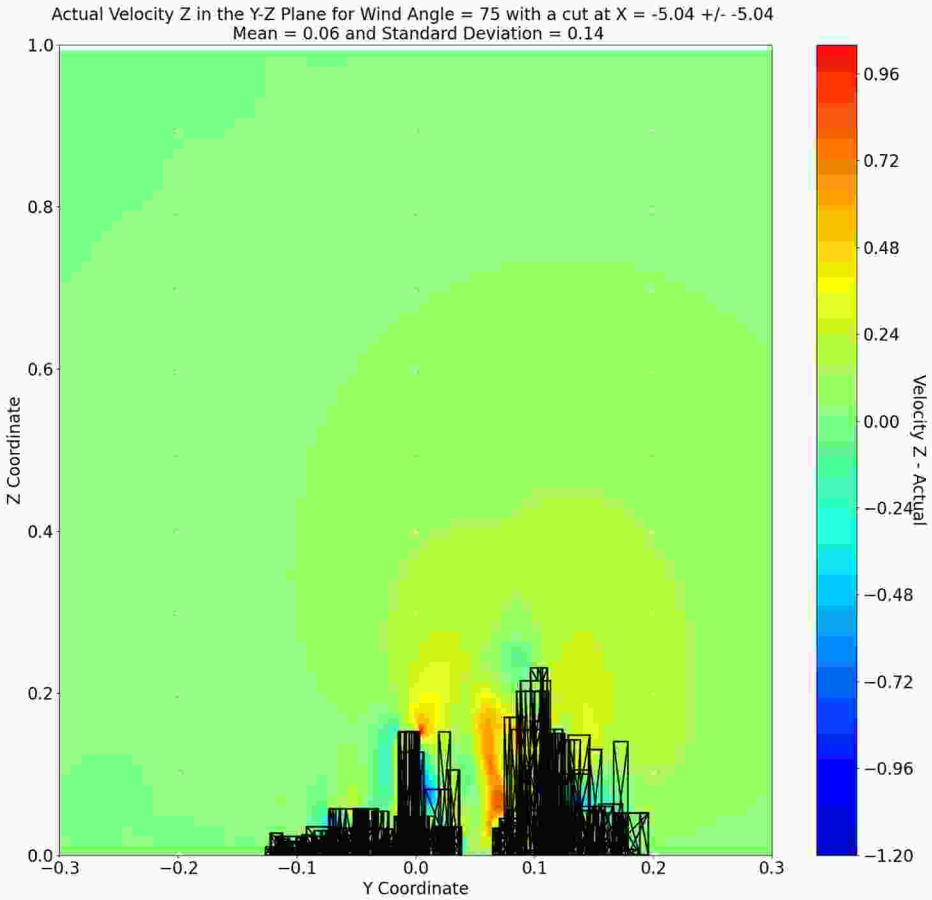


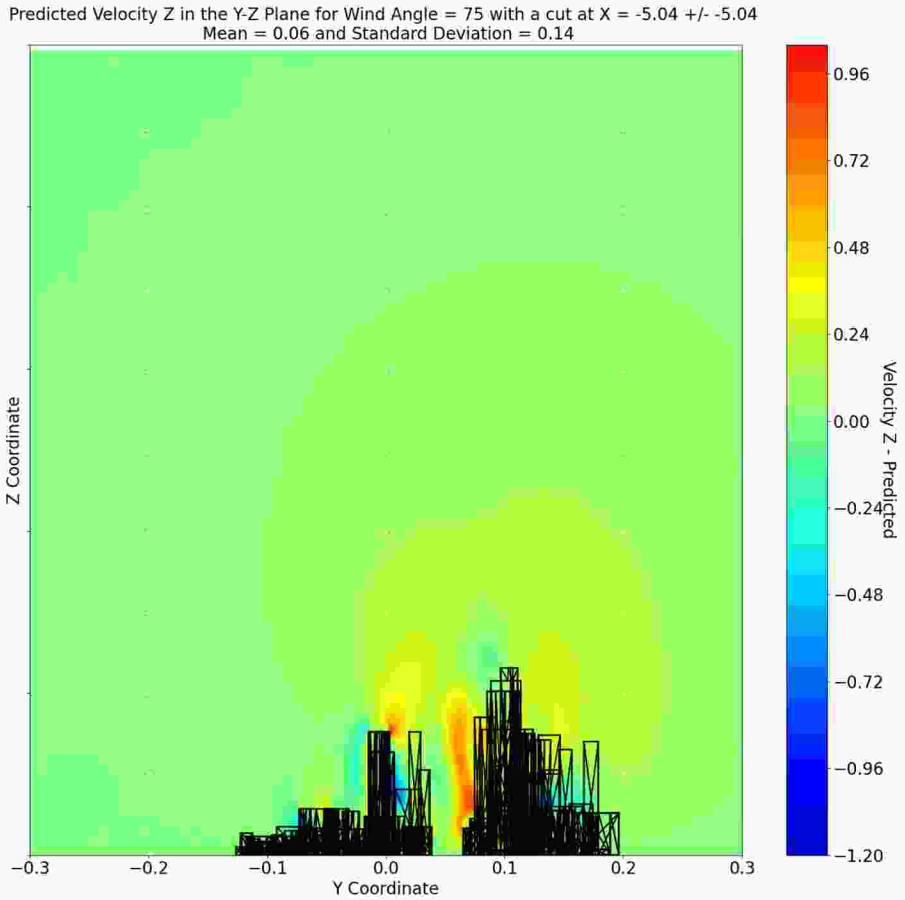
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



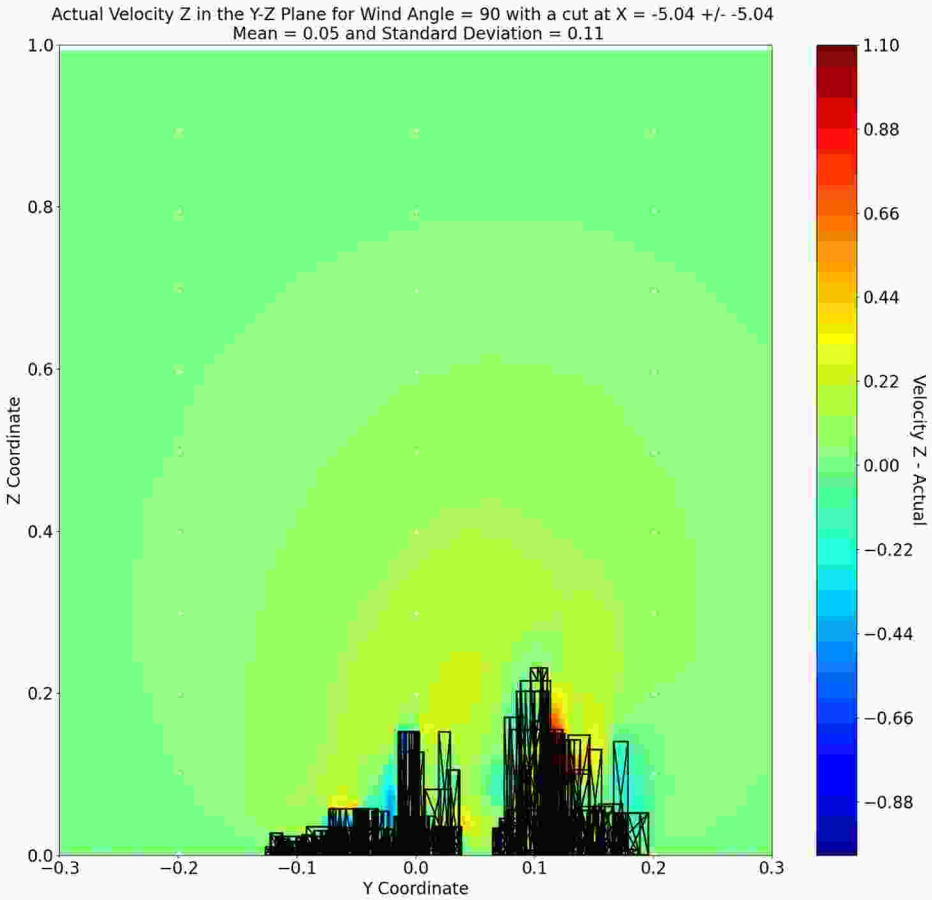


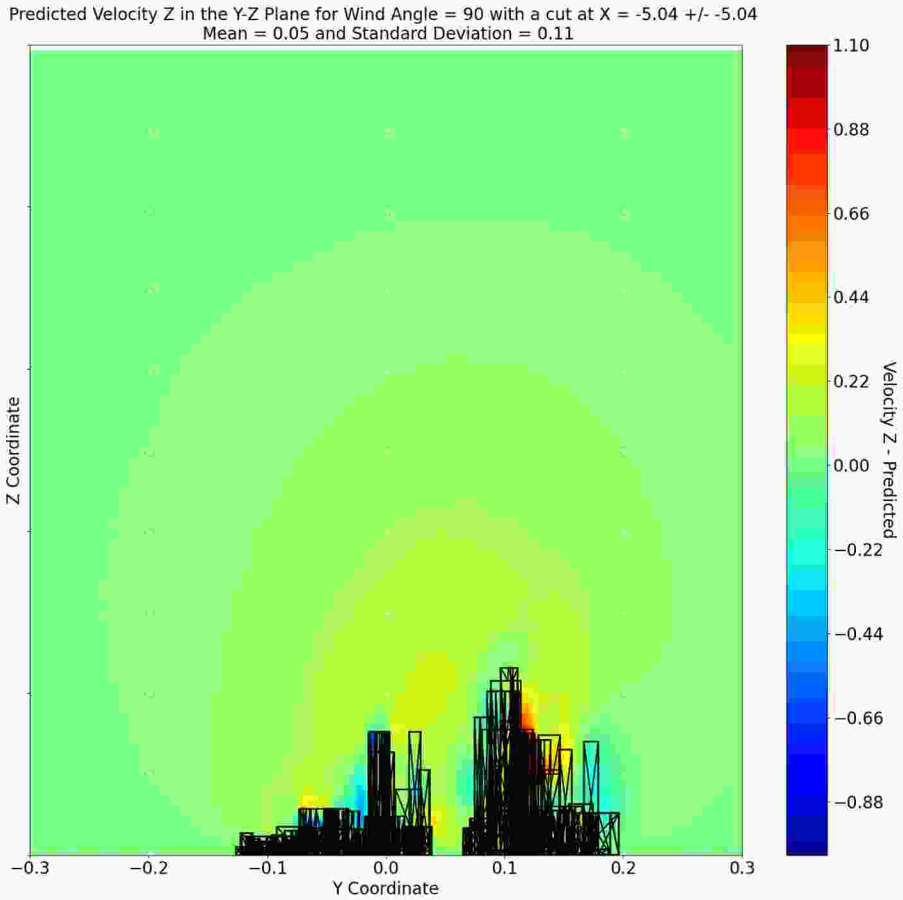
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



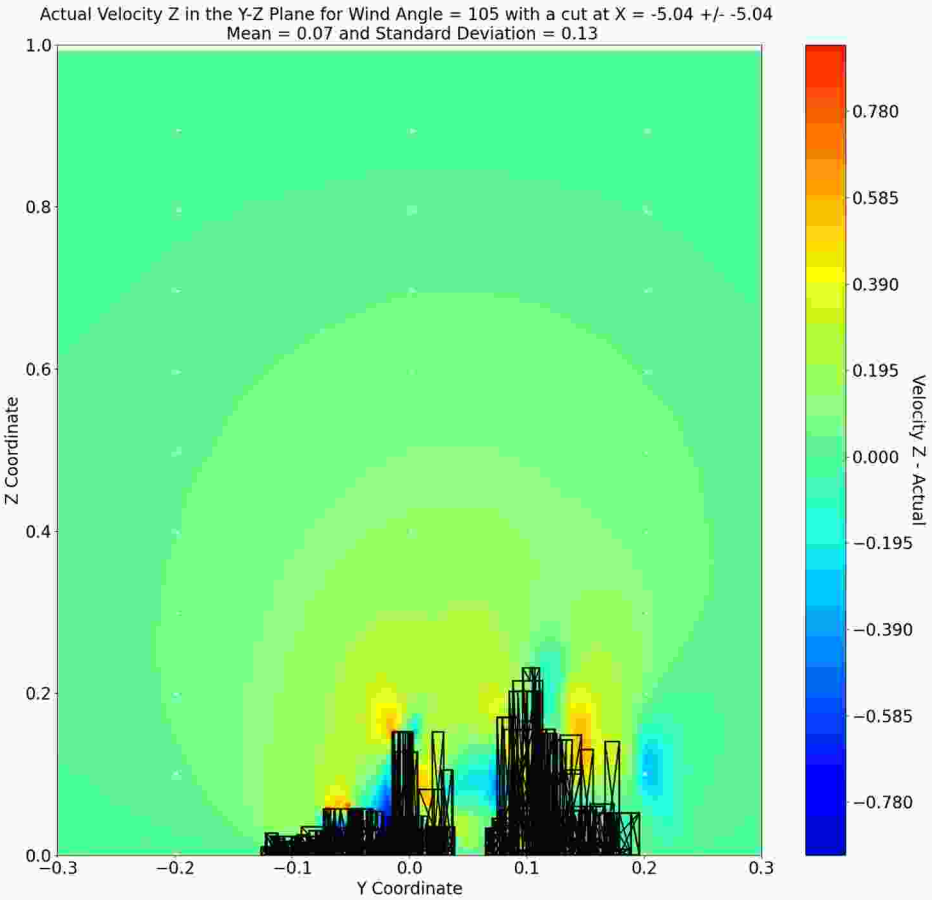


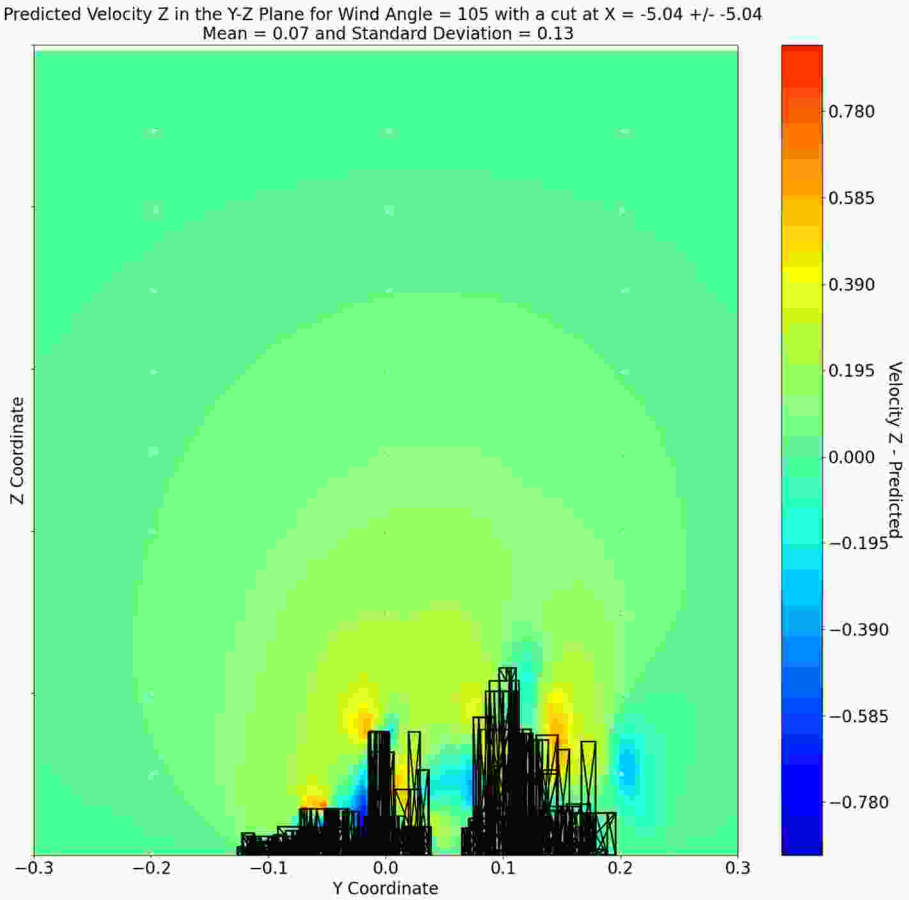
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



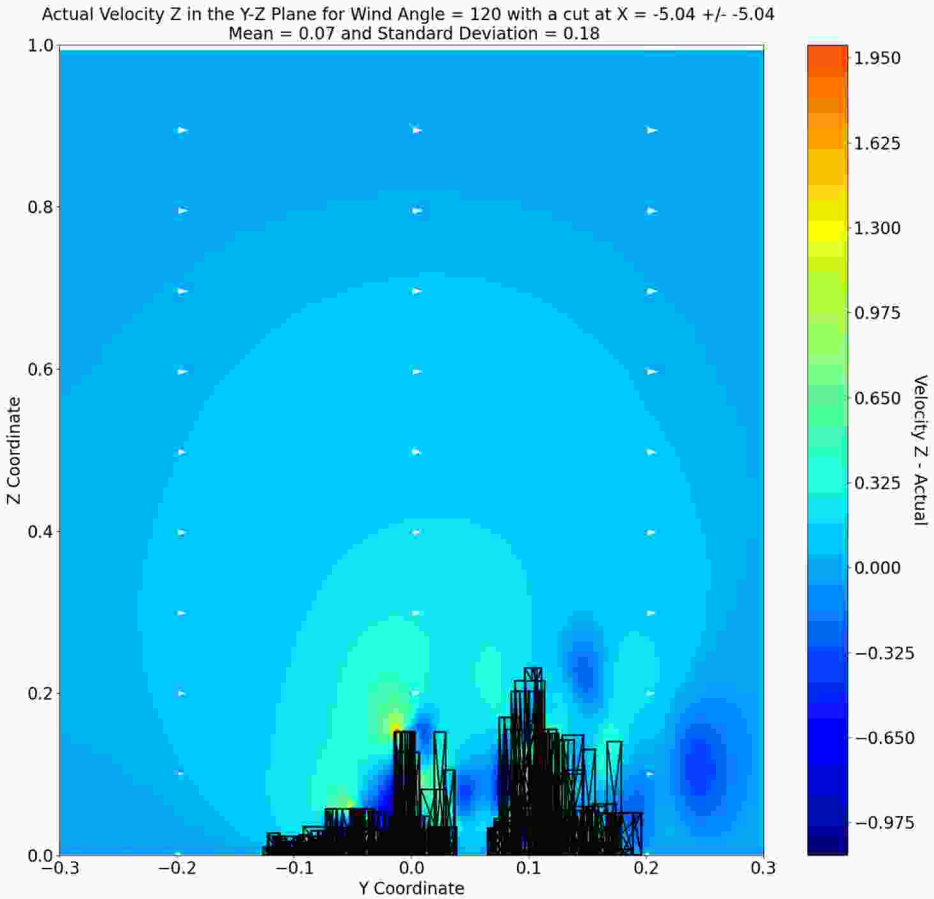


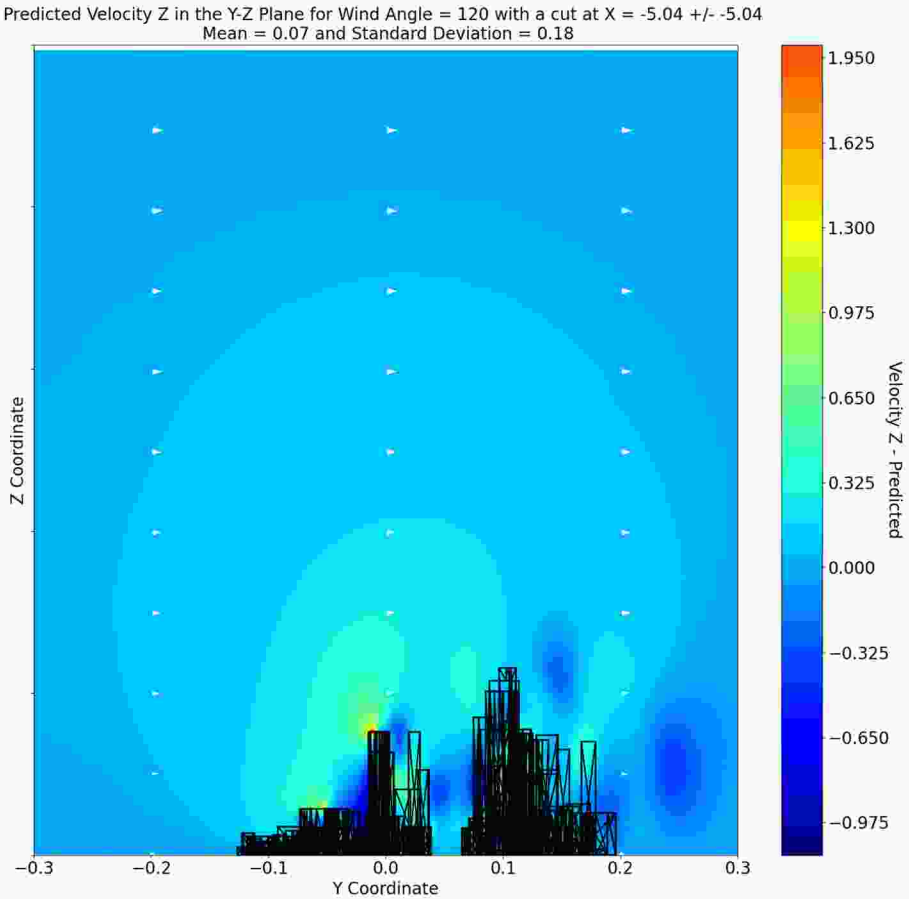
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



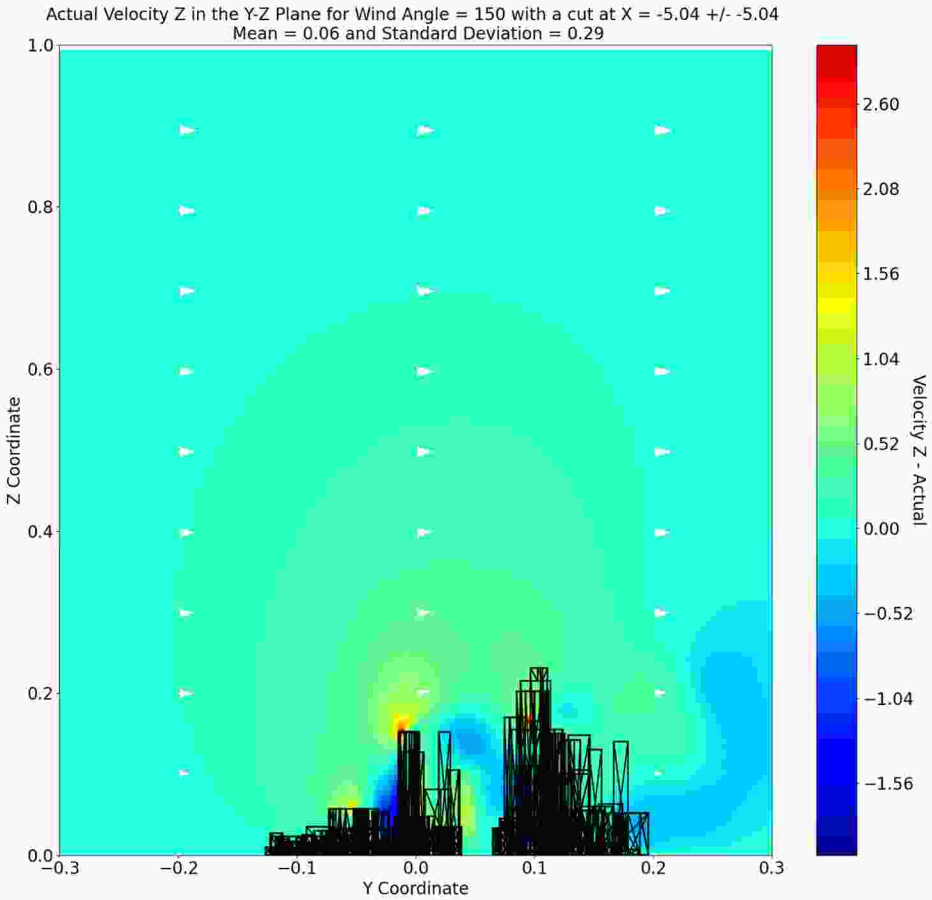


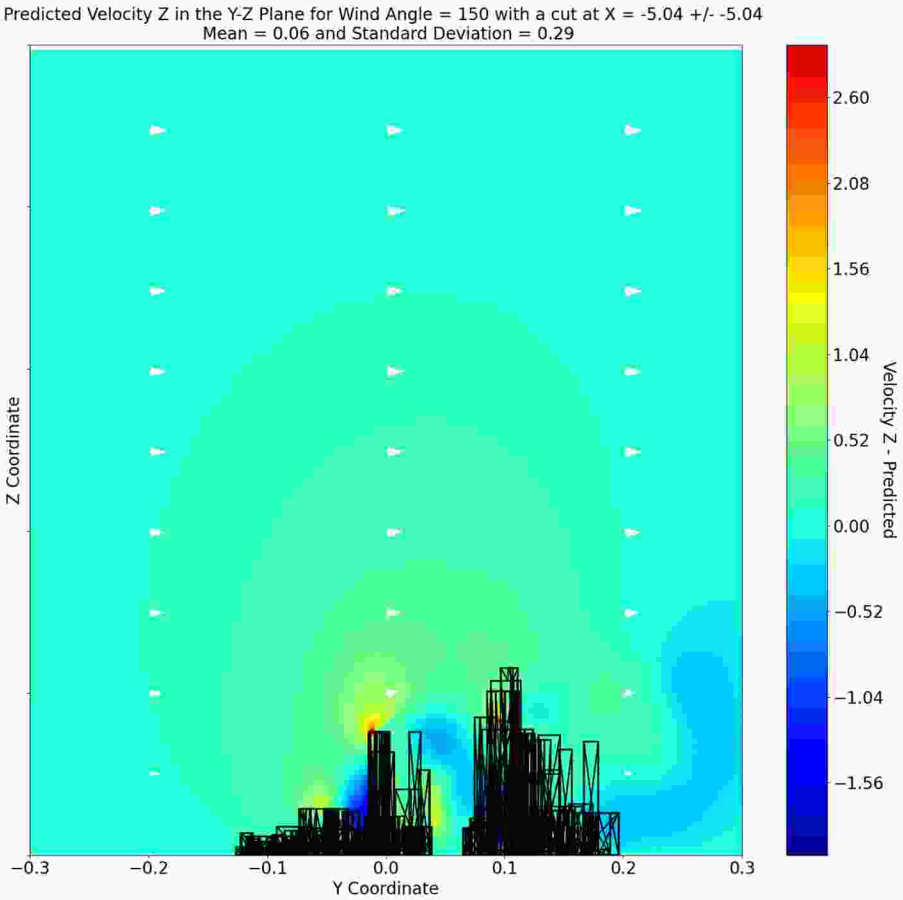
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



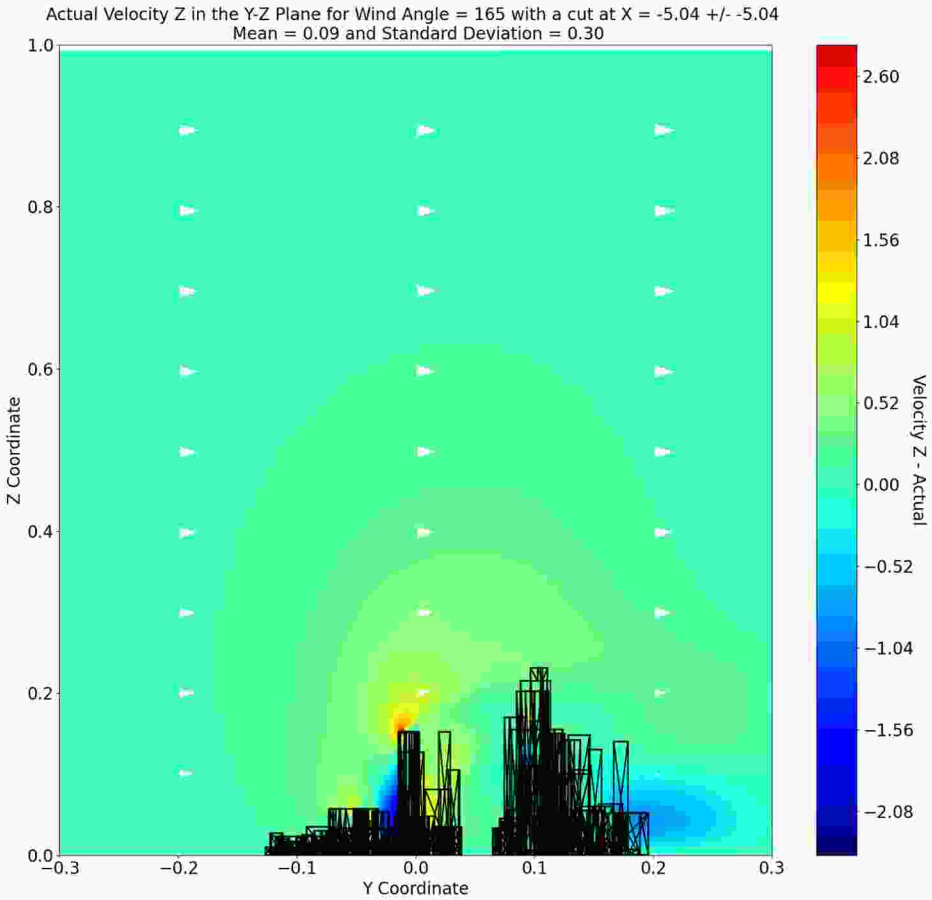


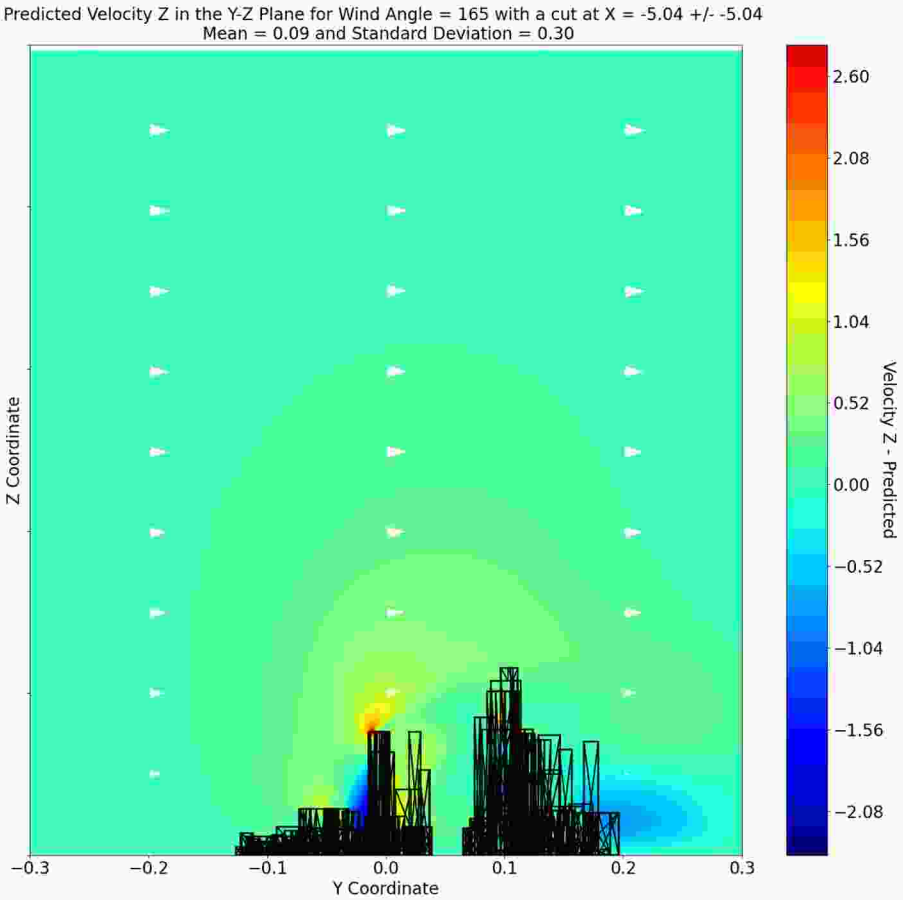
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



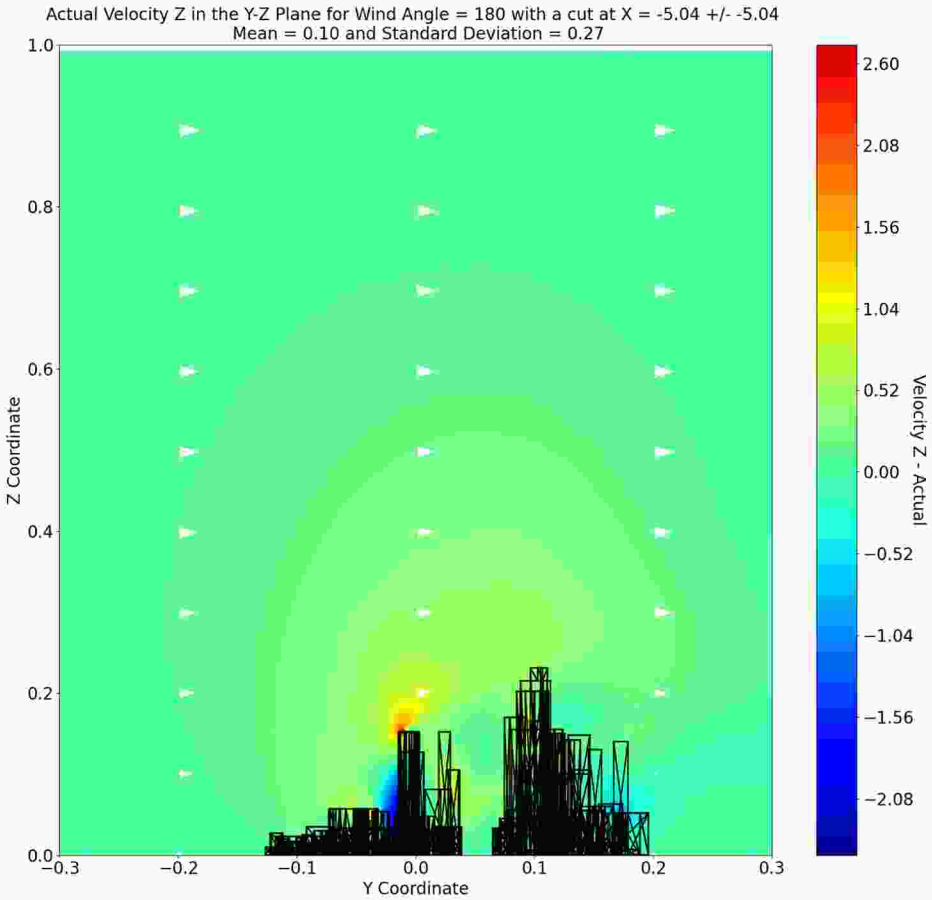


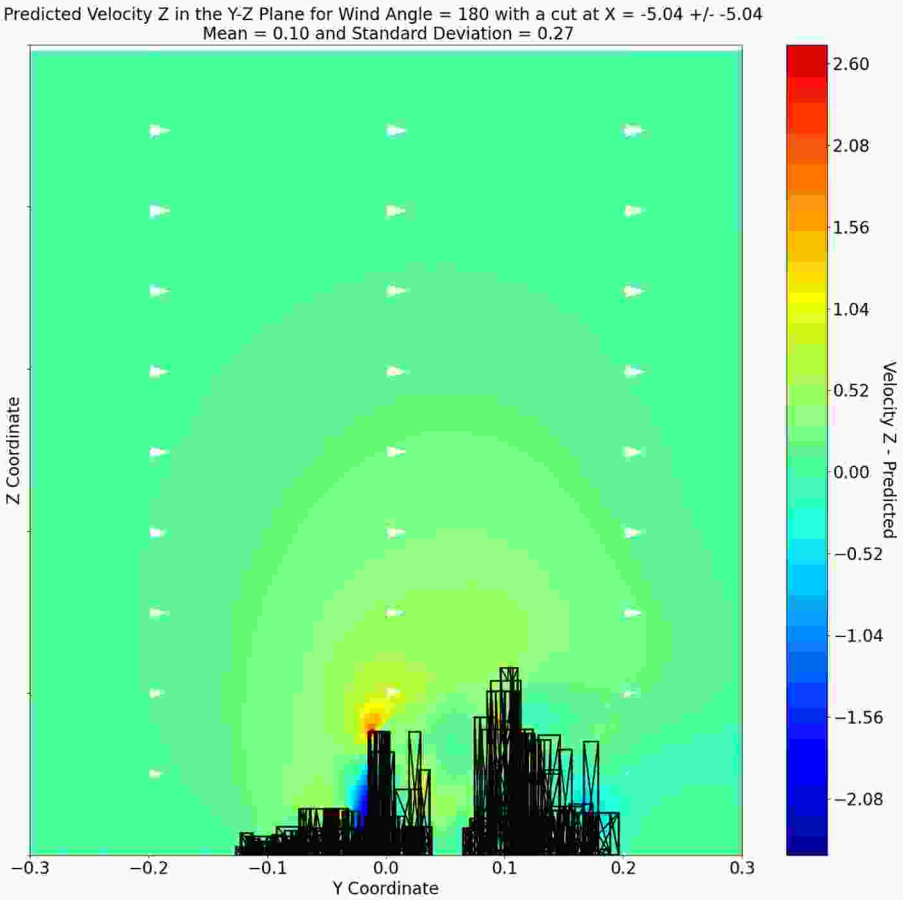
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



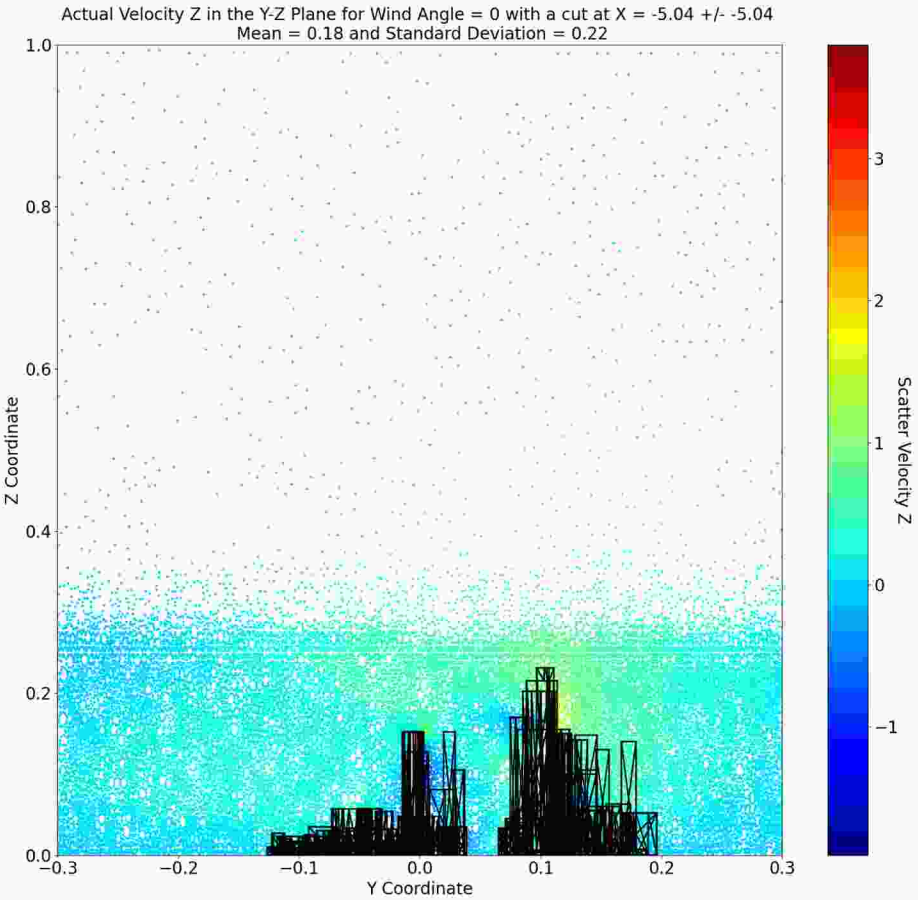


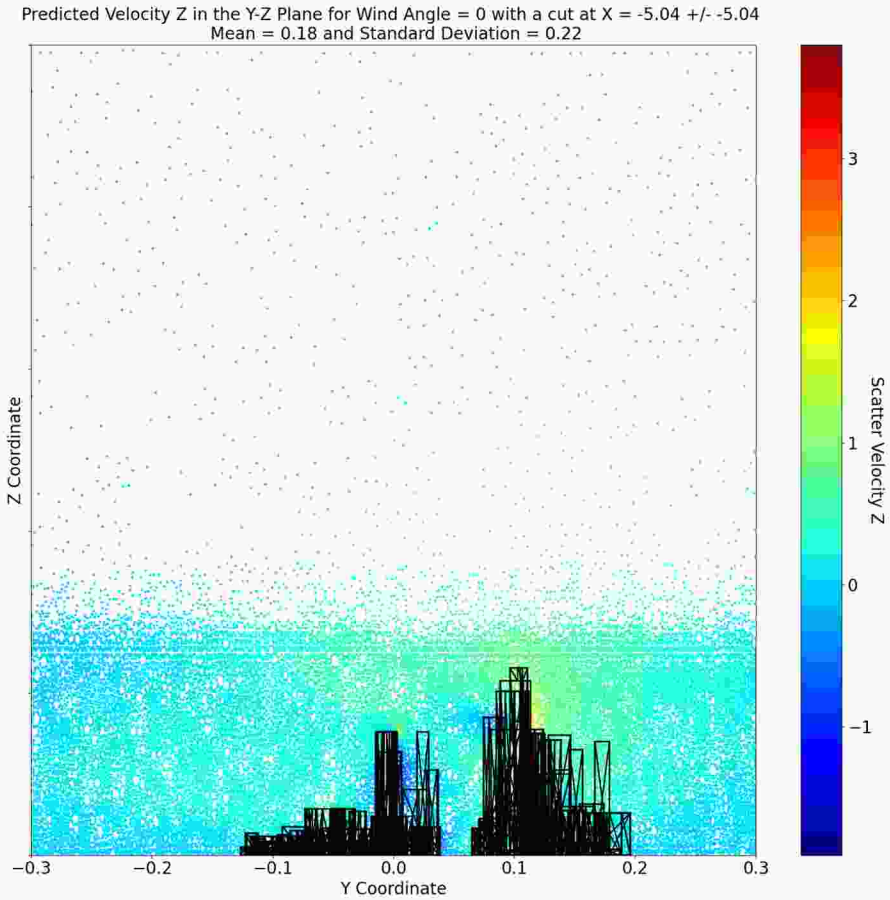
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



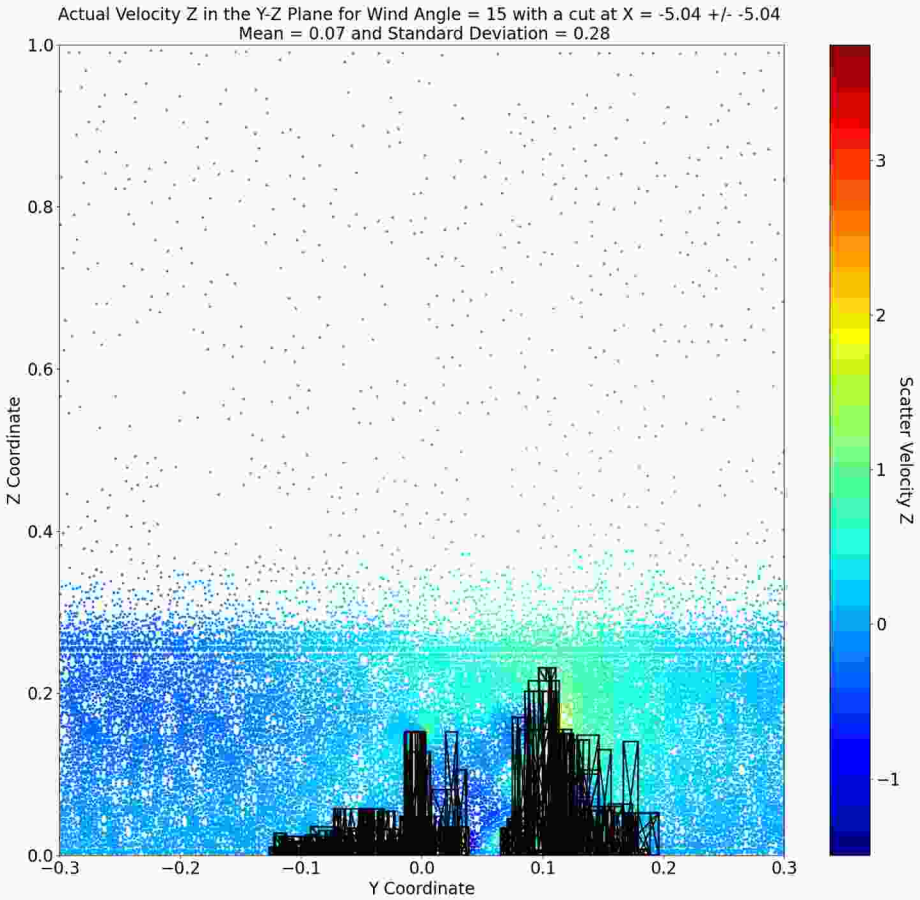


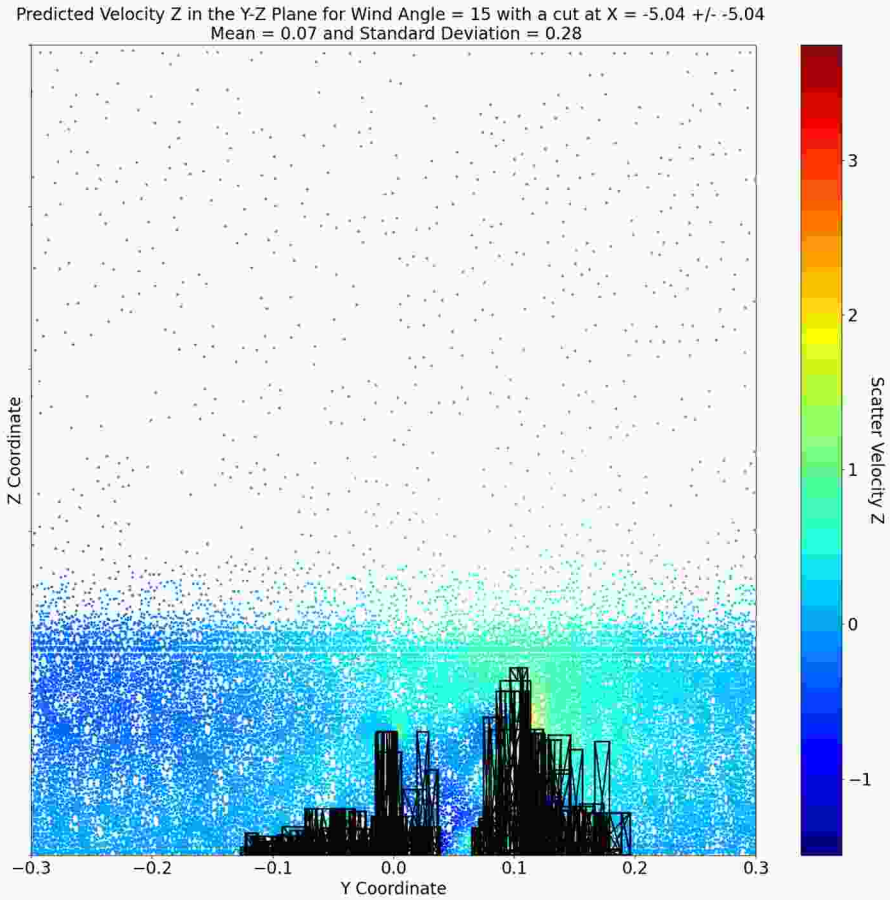
Comparison of Actual vs. Predicted values with Wind Angle = 0 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



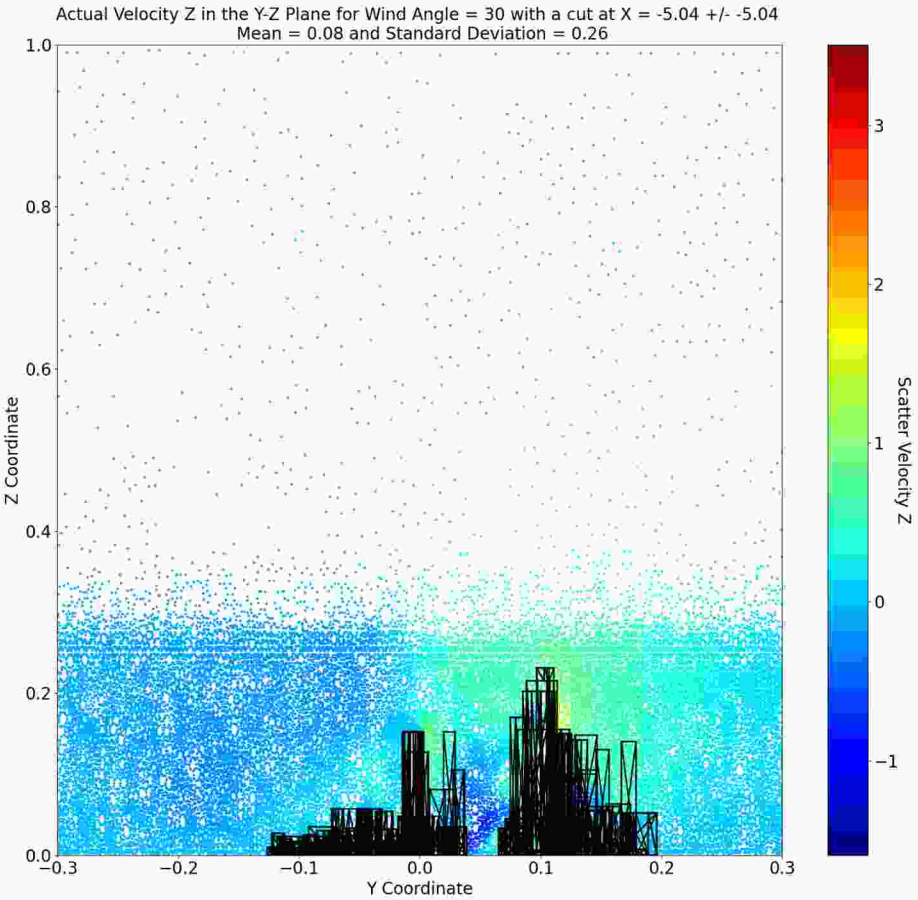


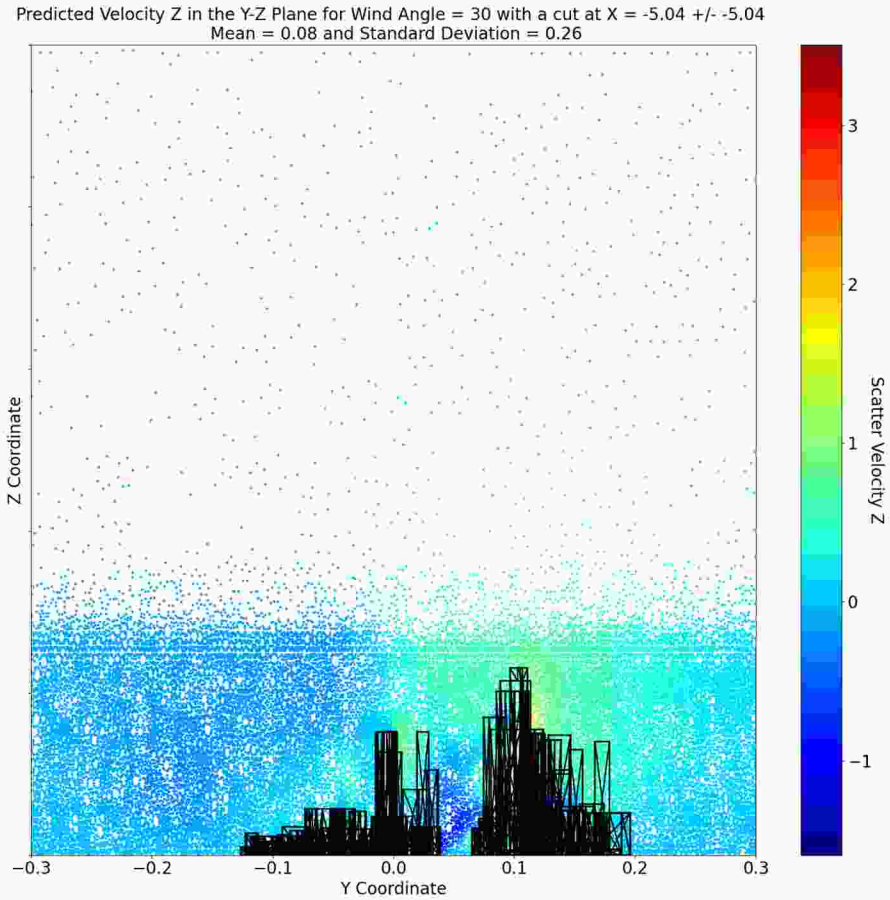
Comparison of Actual vs. Predicted values with Wind Angle = 15 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



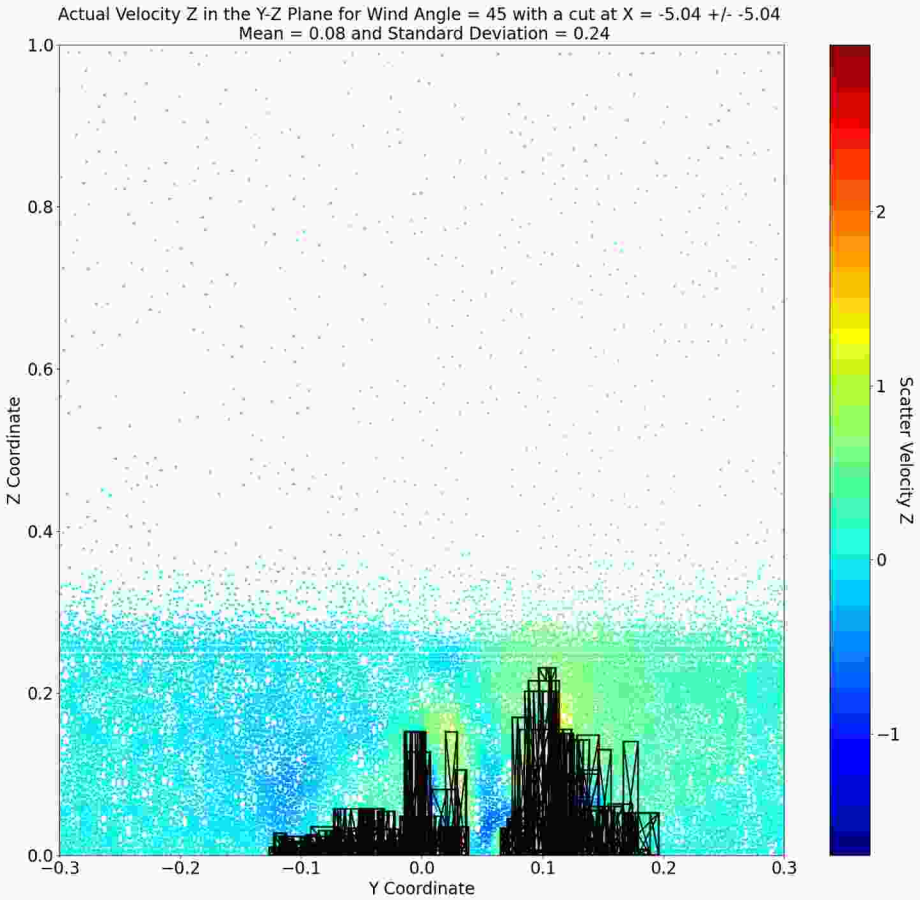


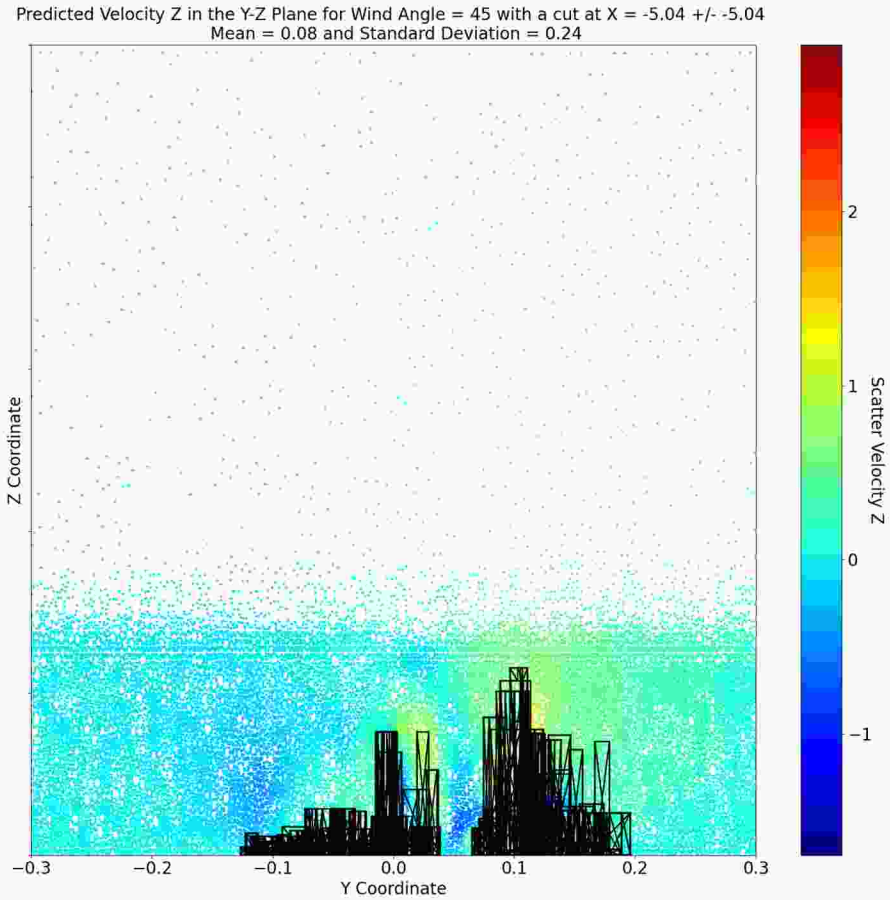
Comparison of Actual vs. Predicted values with Wind Angle = 30 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



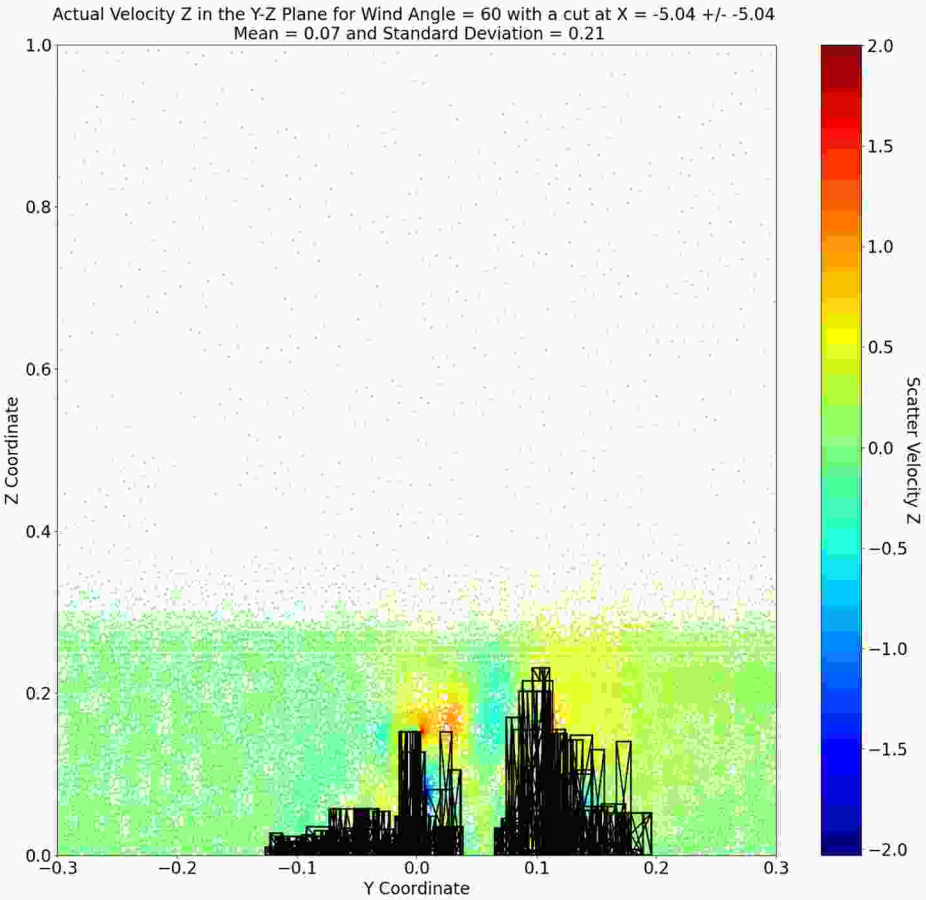


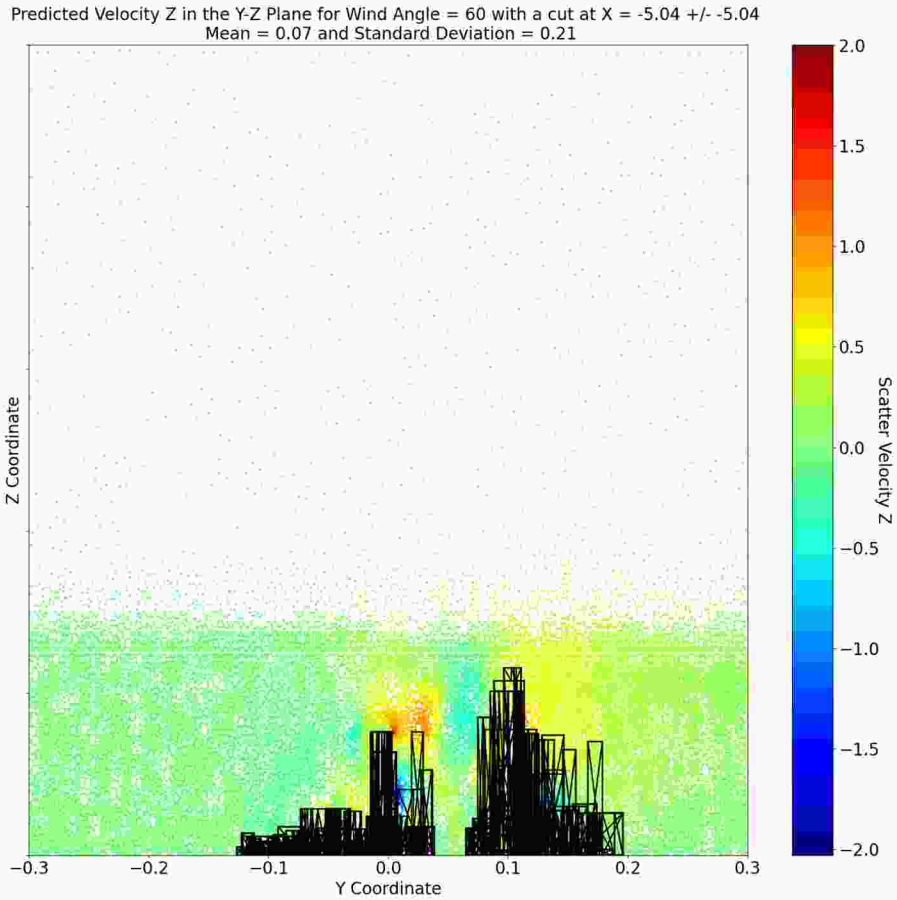
Comparison of Actual vs. Predicted values with Wind Angle = 45 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



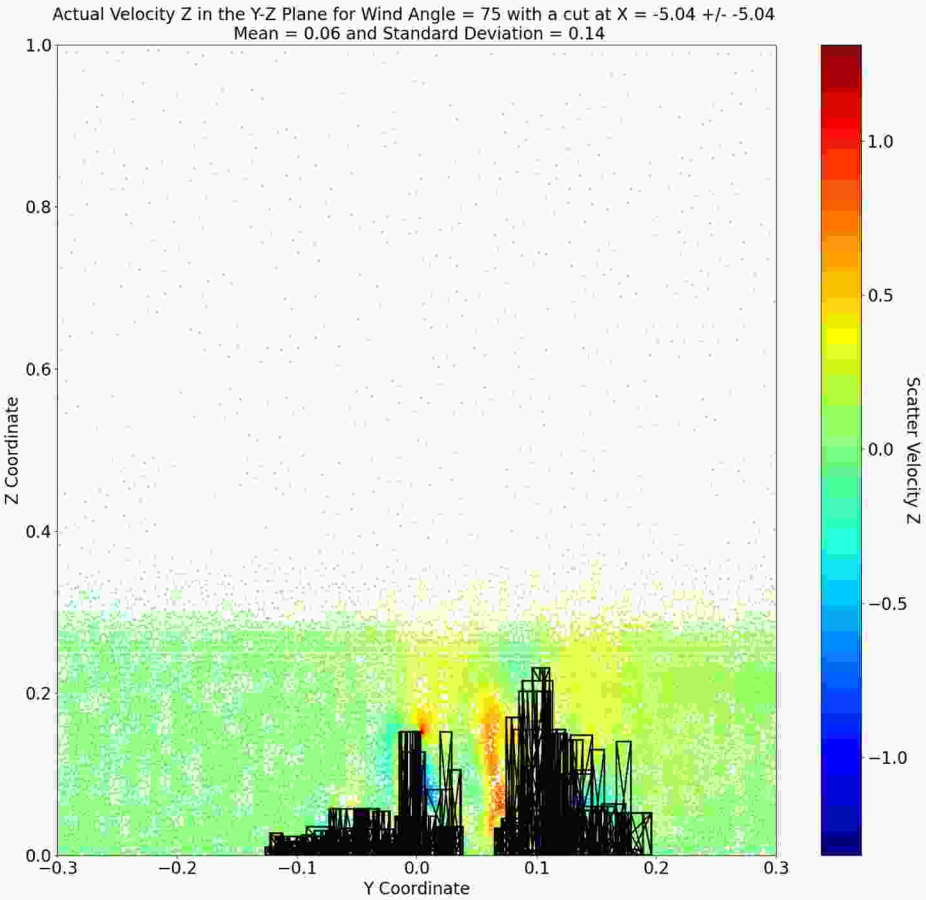


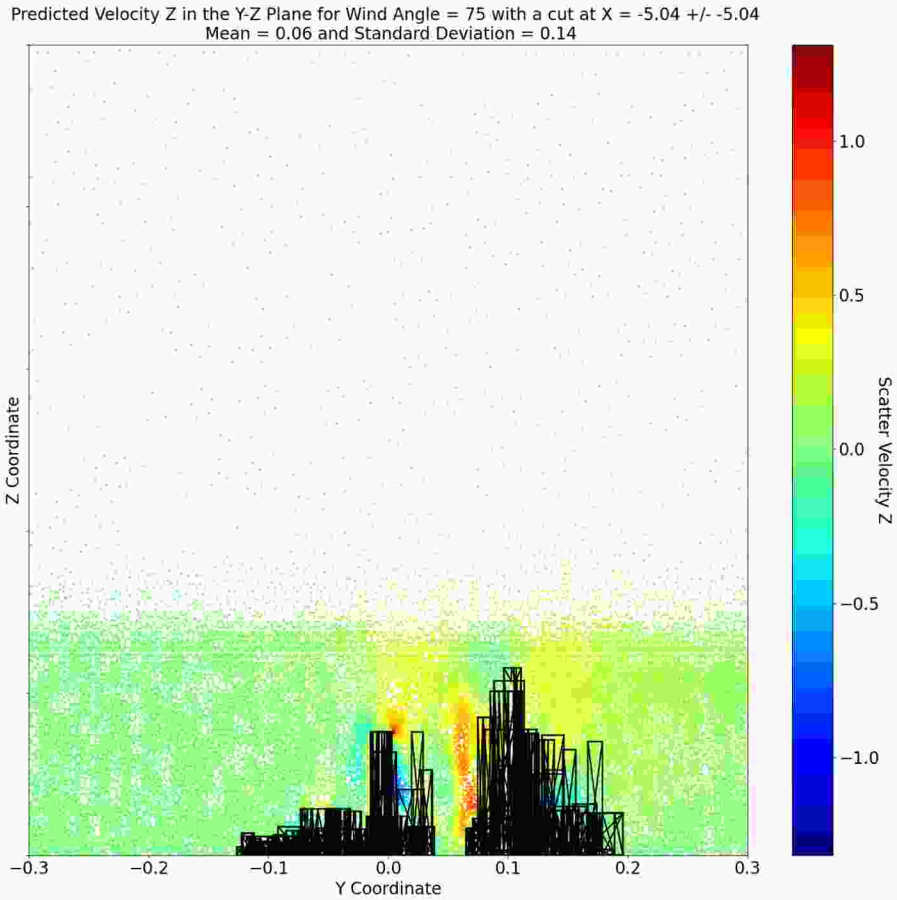
Comparison of Actual vs. Predicted values with Wind Angle = 60 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



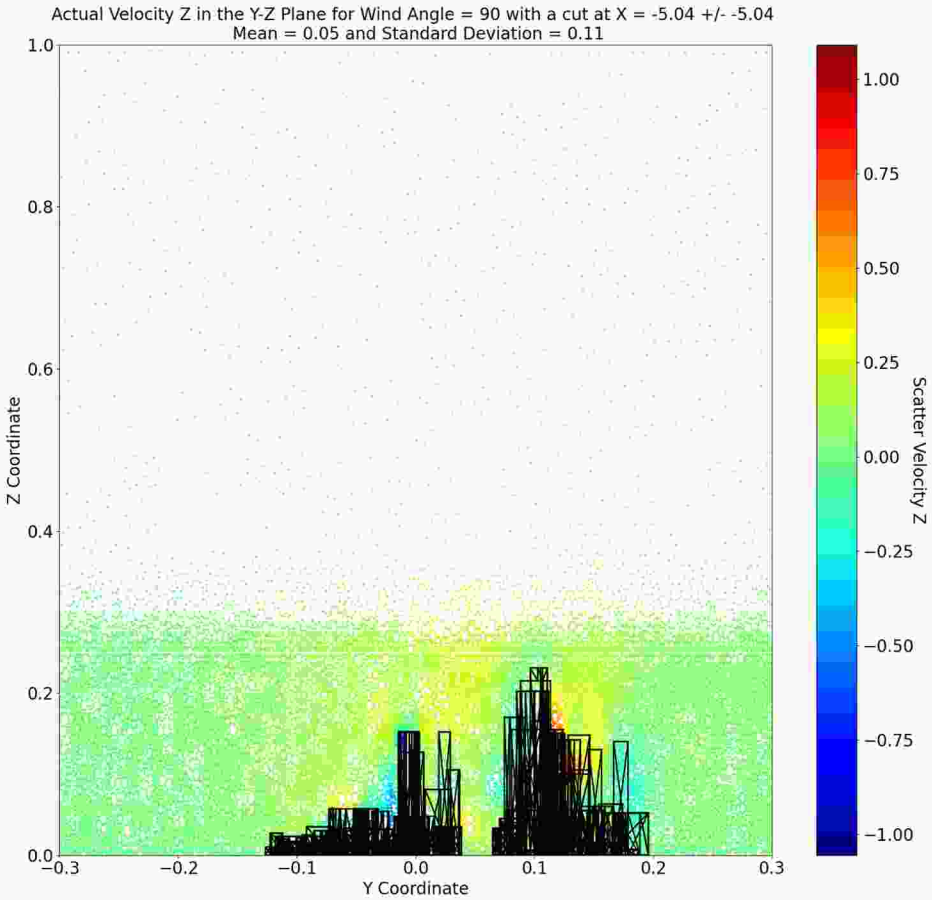


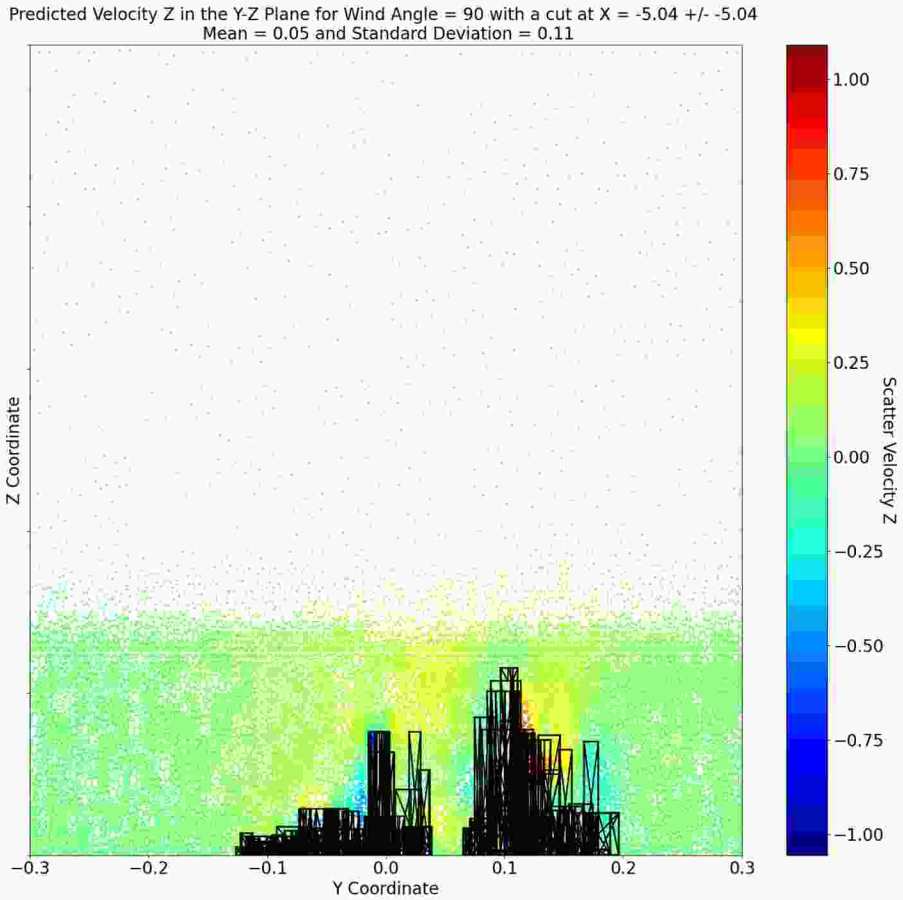
Comparison of Actual vs. Predicted values with Wind Angle = 75 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



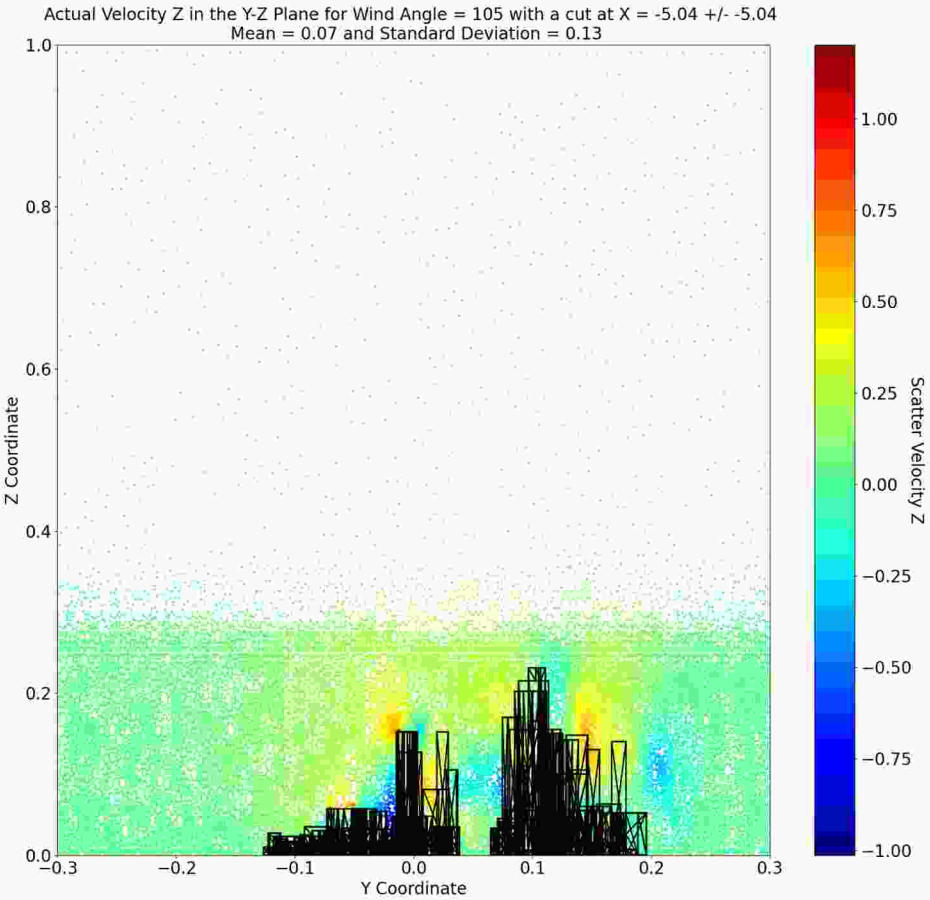


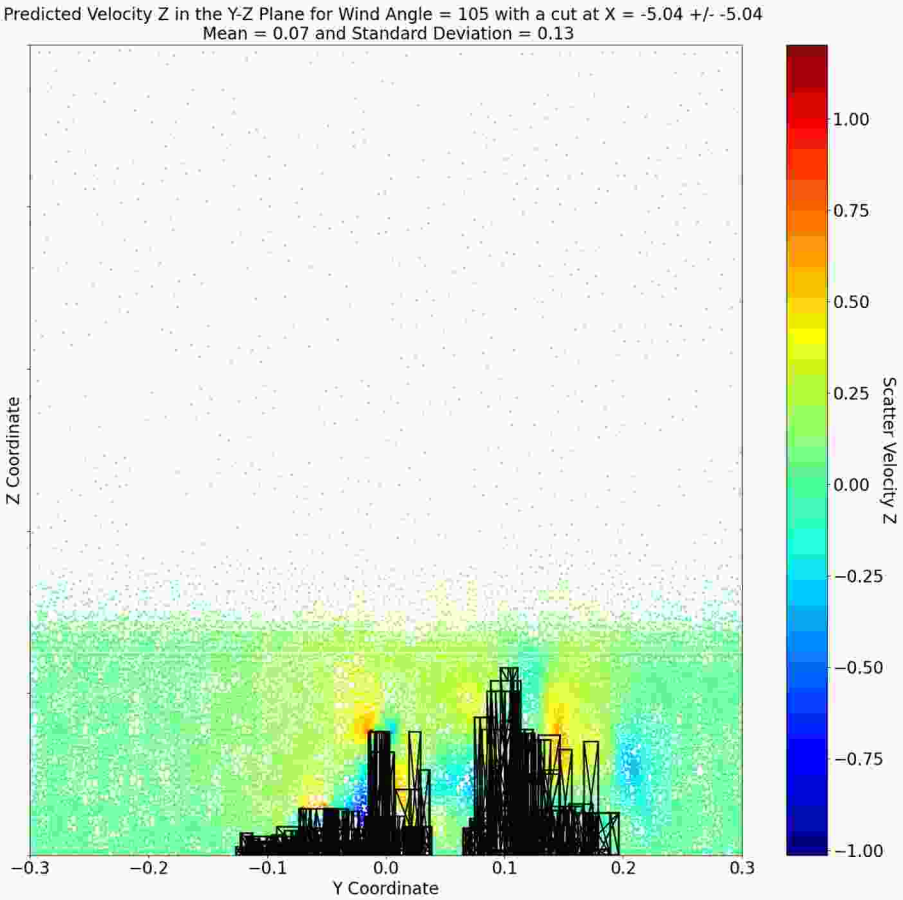
Comparison of Actual vs. Predicted values with Wind Angle = 90 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



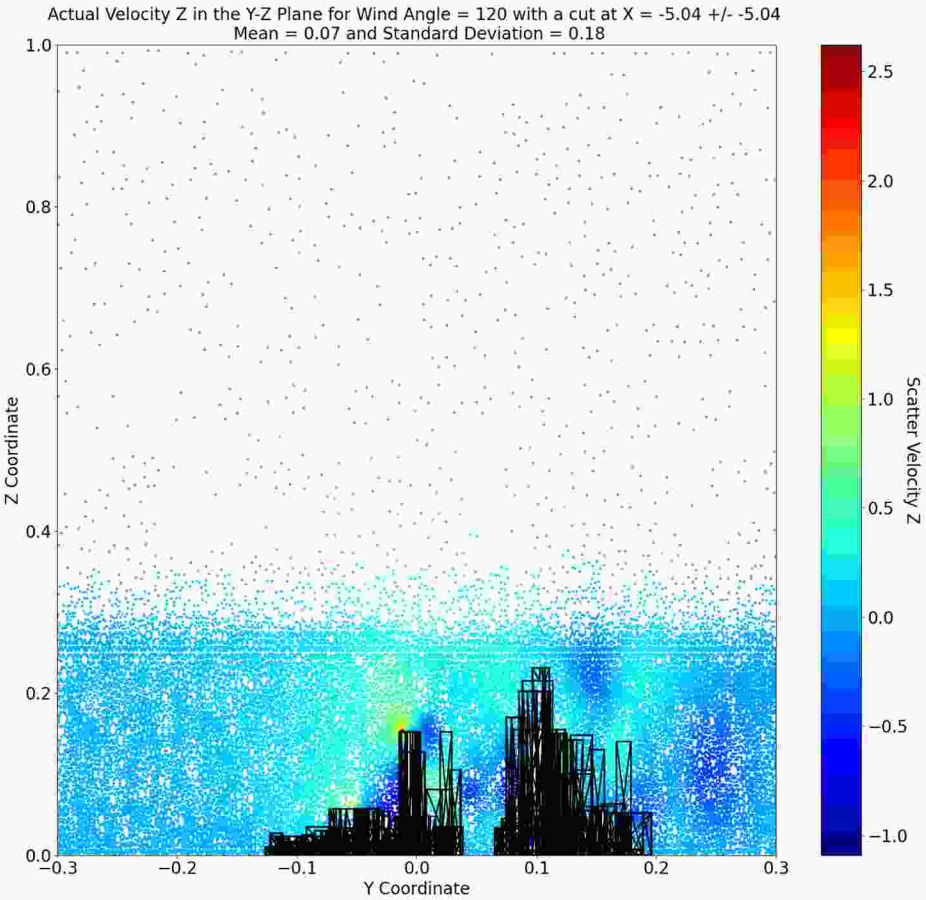


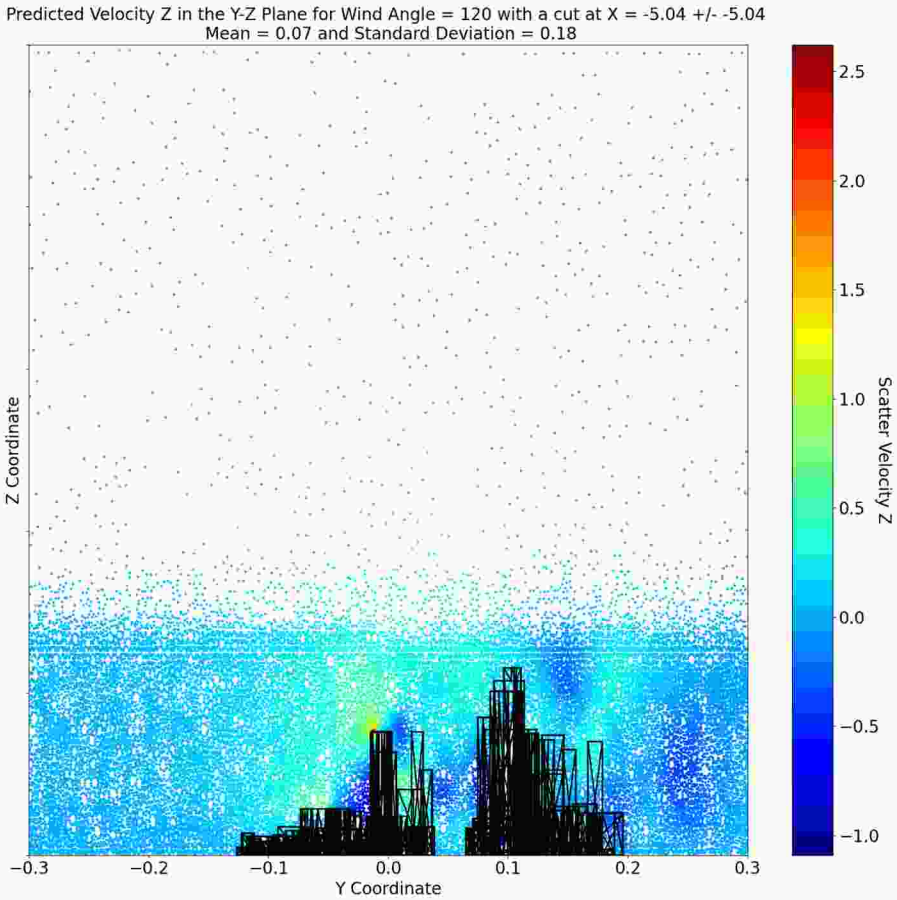
Comparison of Actual vs. Predicted values with Wind Angle = 105 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



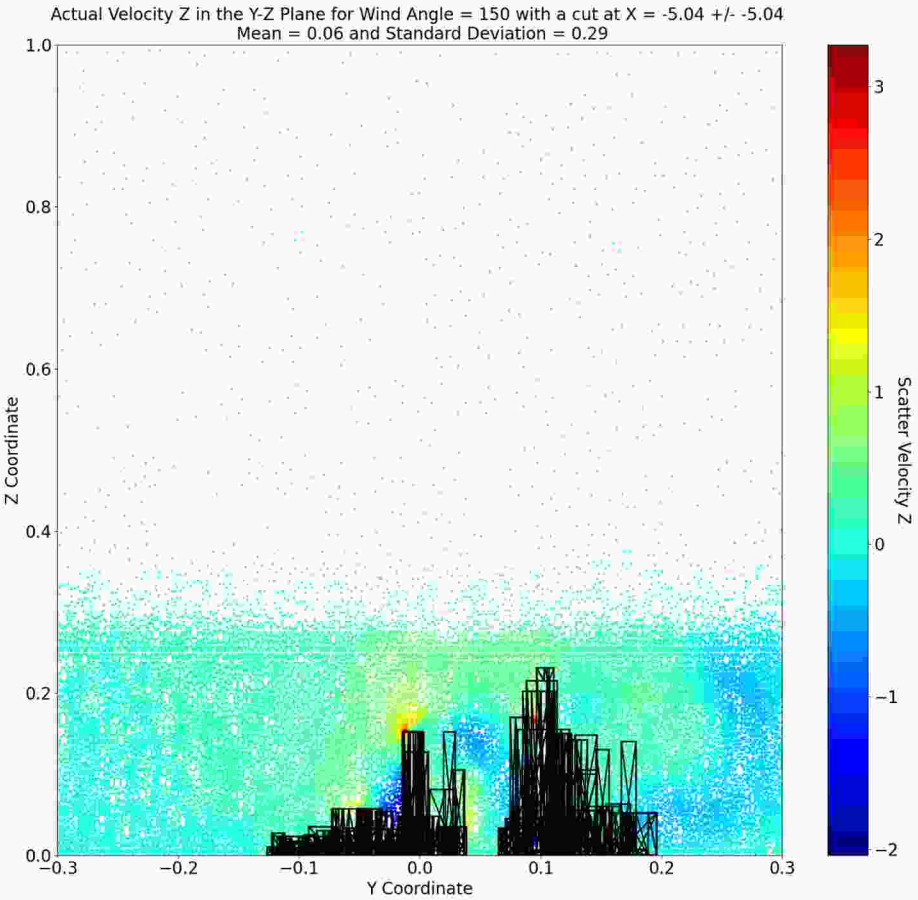


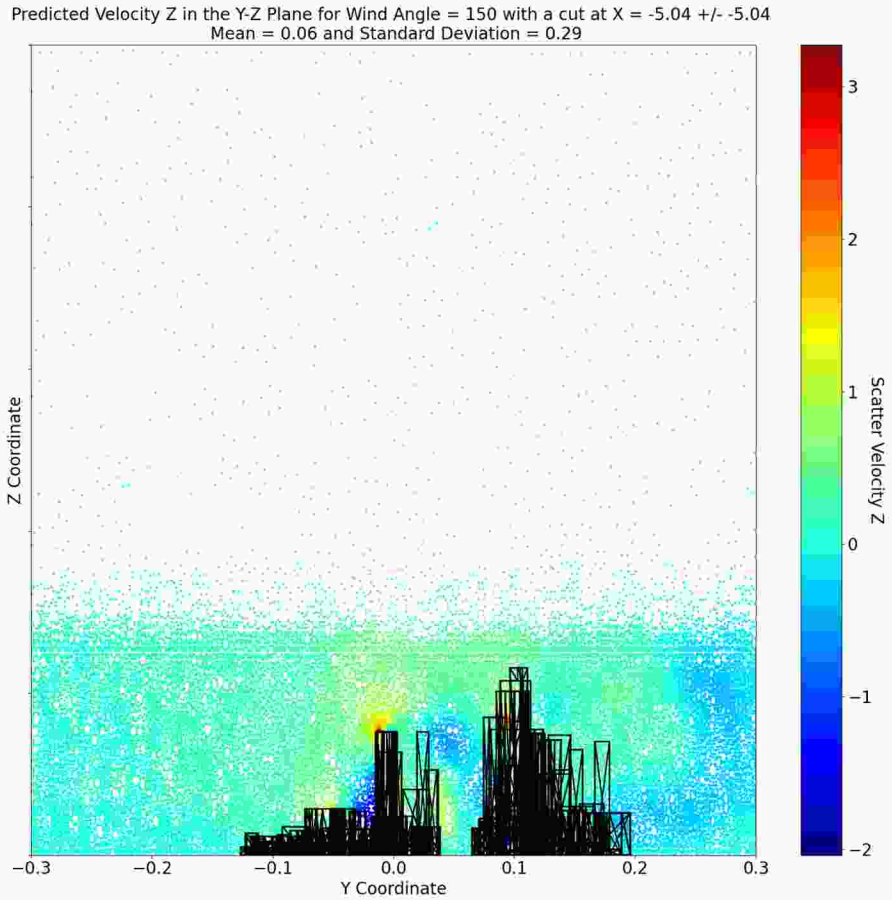
Comparison of Actual vs. Predicted values with Wind Angle = 120 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



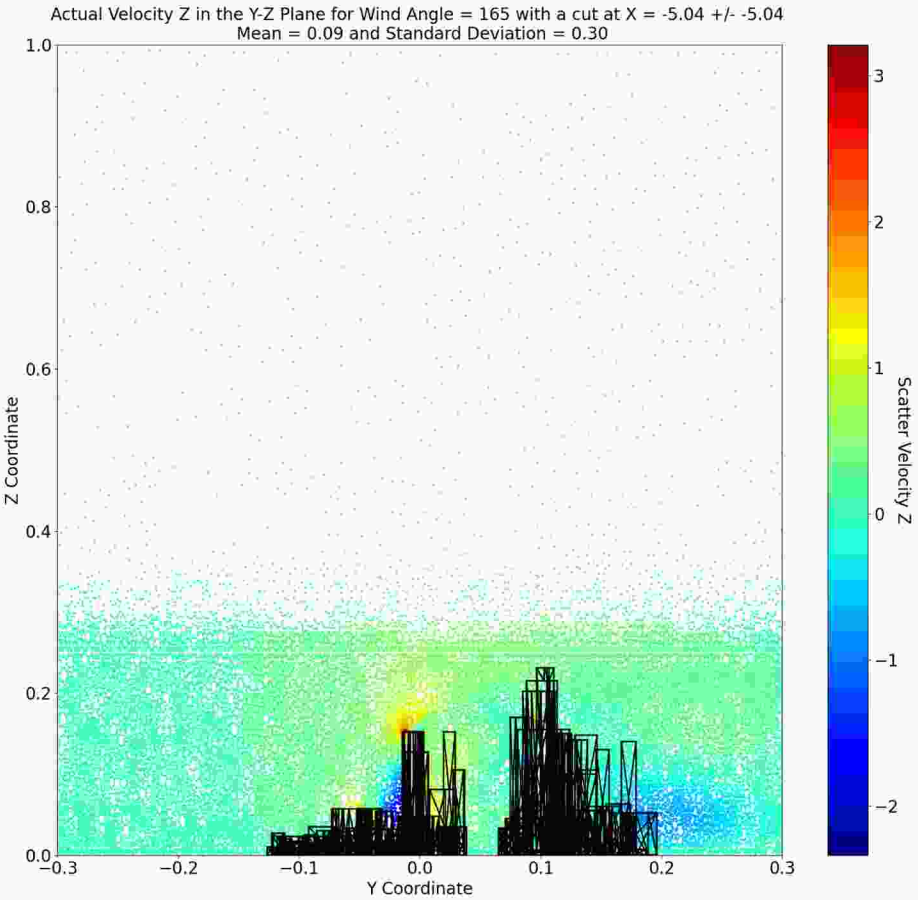


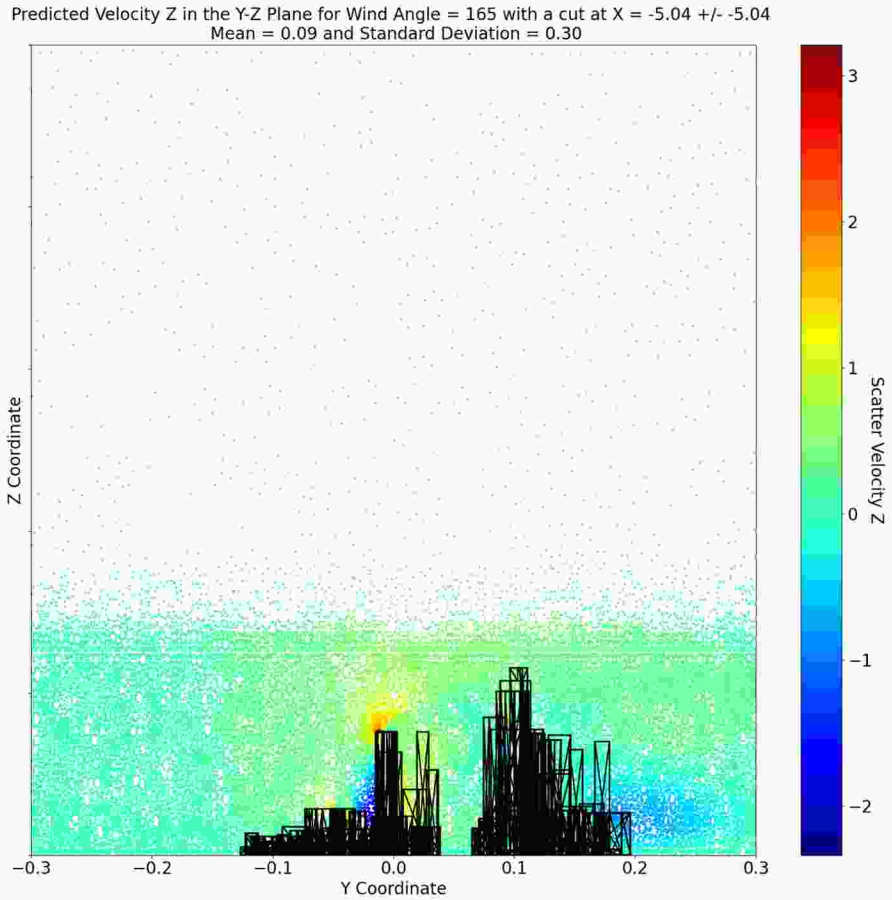
Comparison of Actual vs. Predicted values with Wind Angle = 150 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04



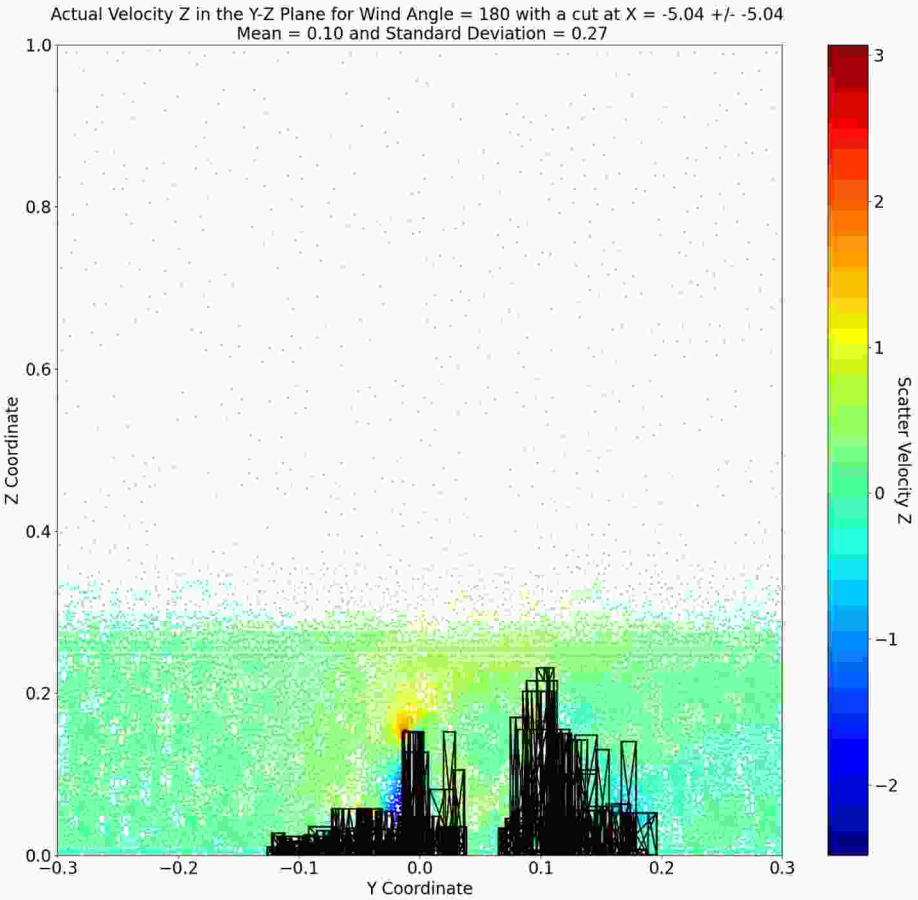


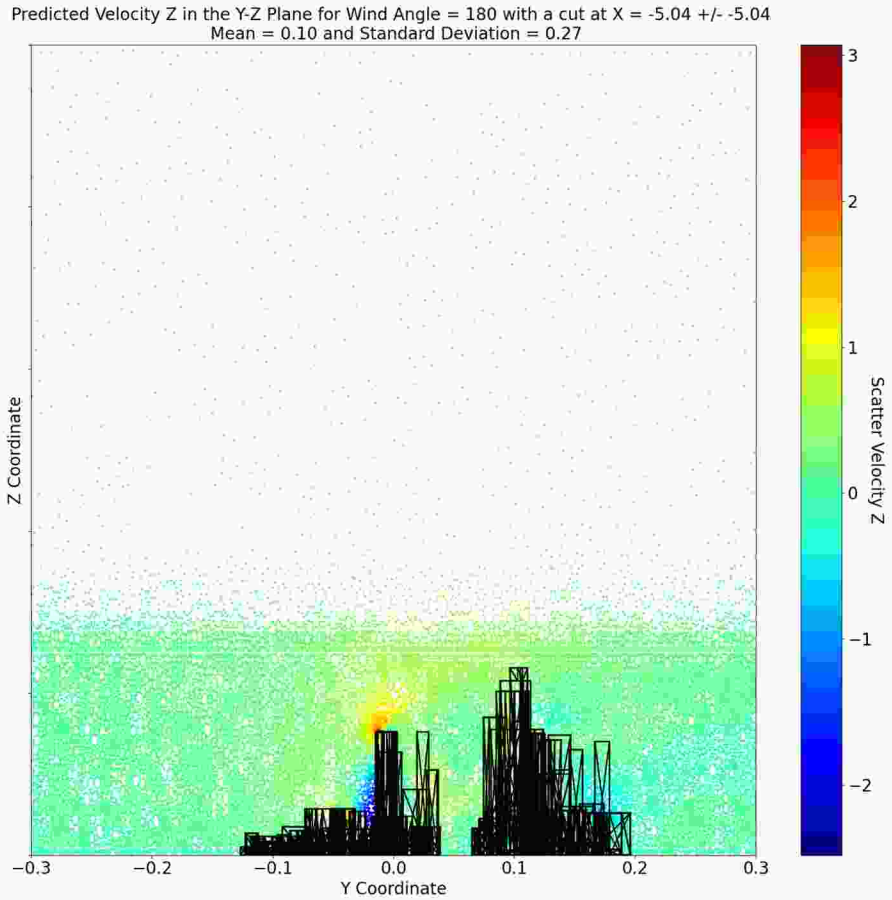
Comparison of Actual vs. Predicted values with Wind Angle = 165 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

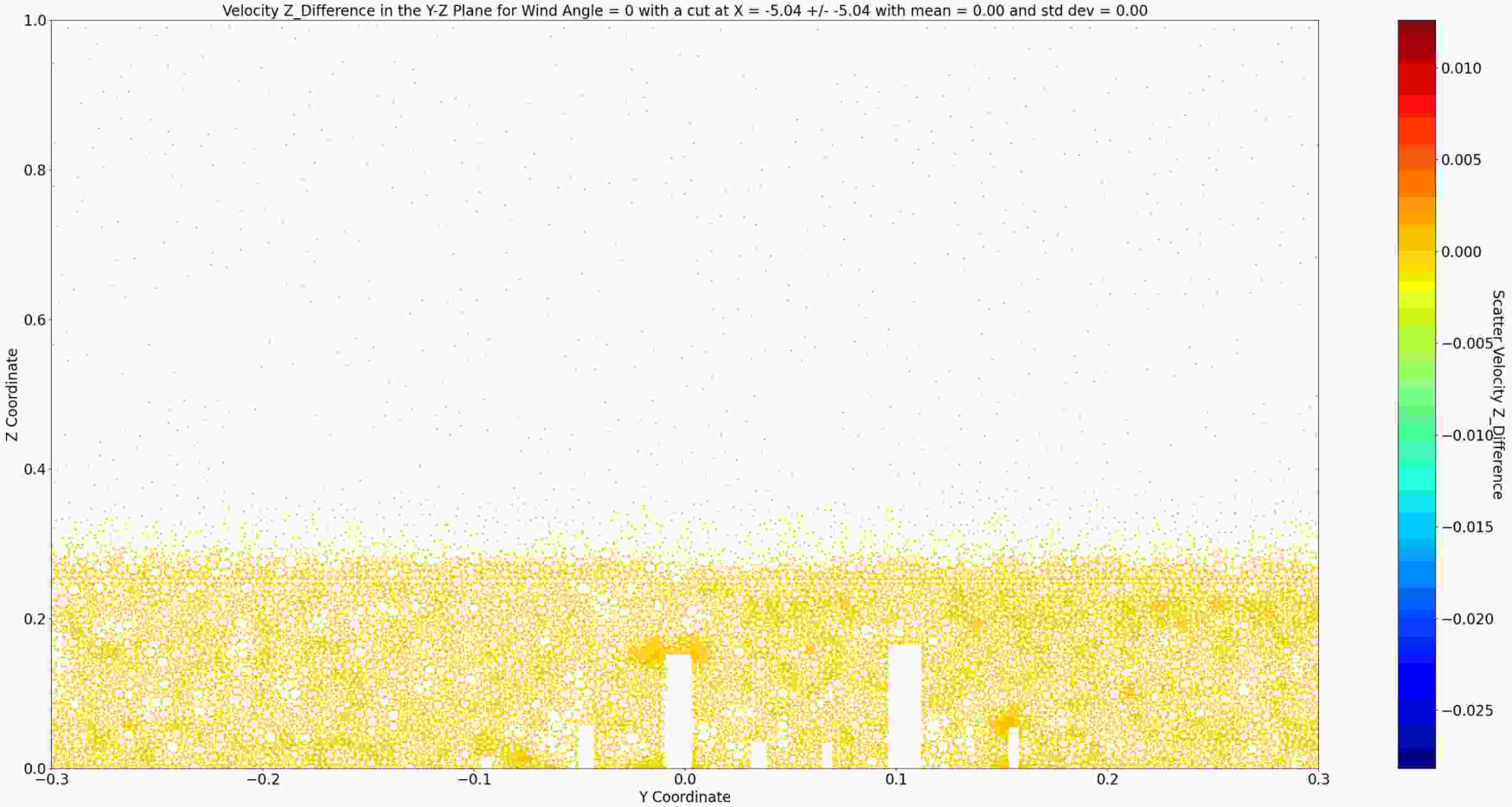


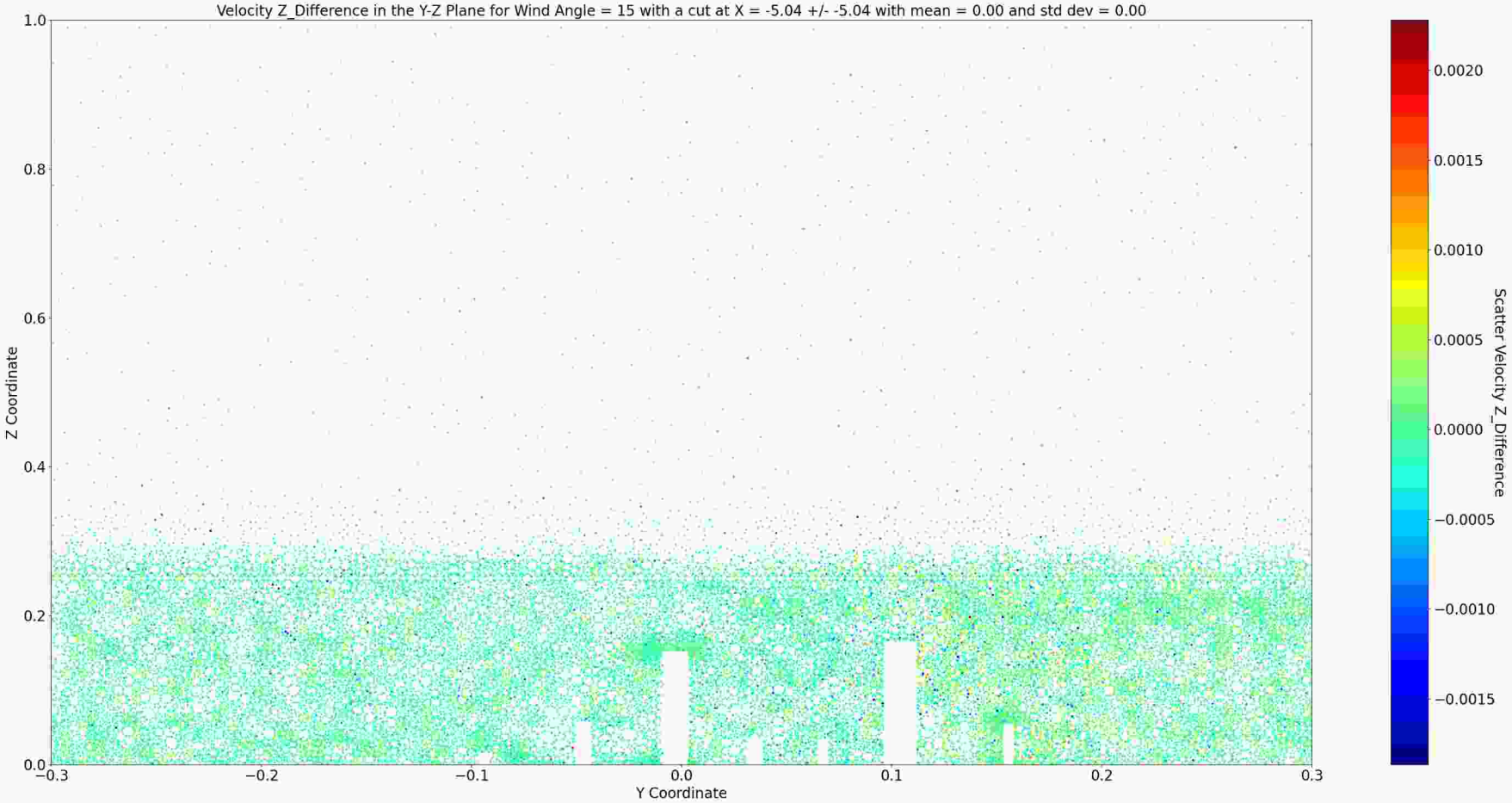


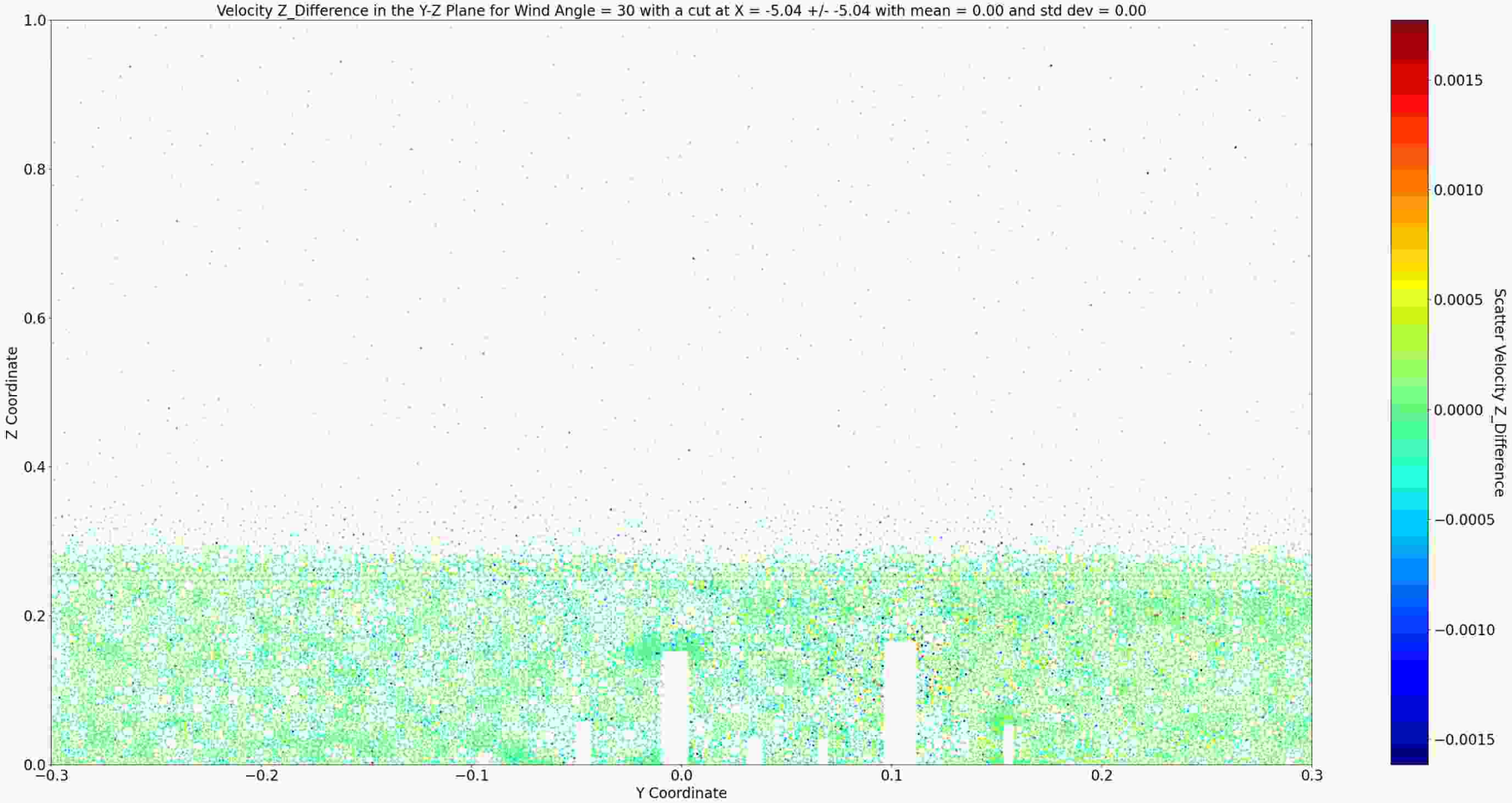
Comparison of Actual vs. Predicted values with Wind Angle = 180 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

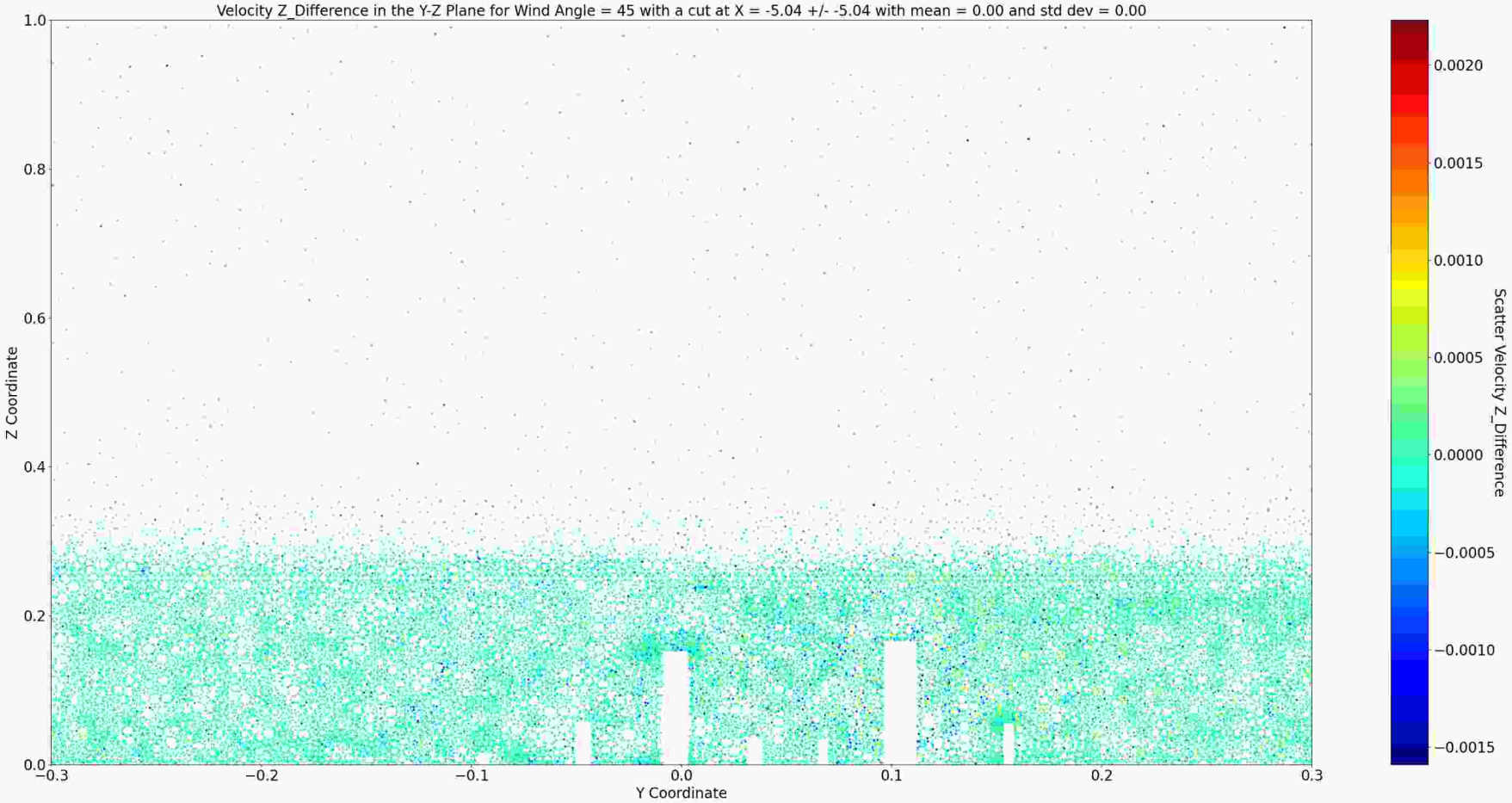


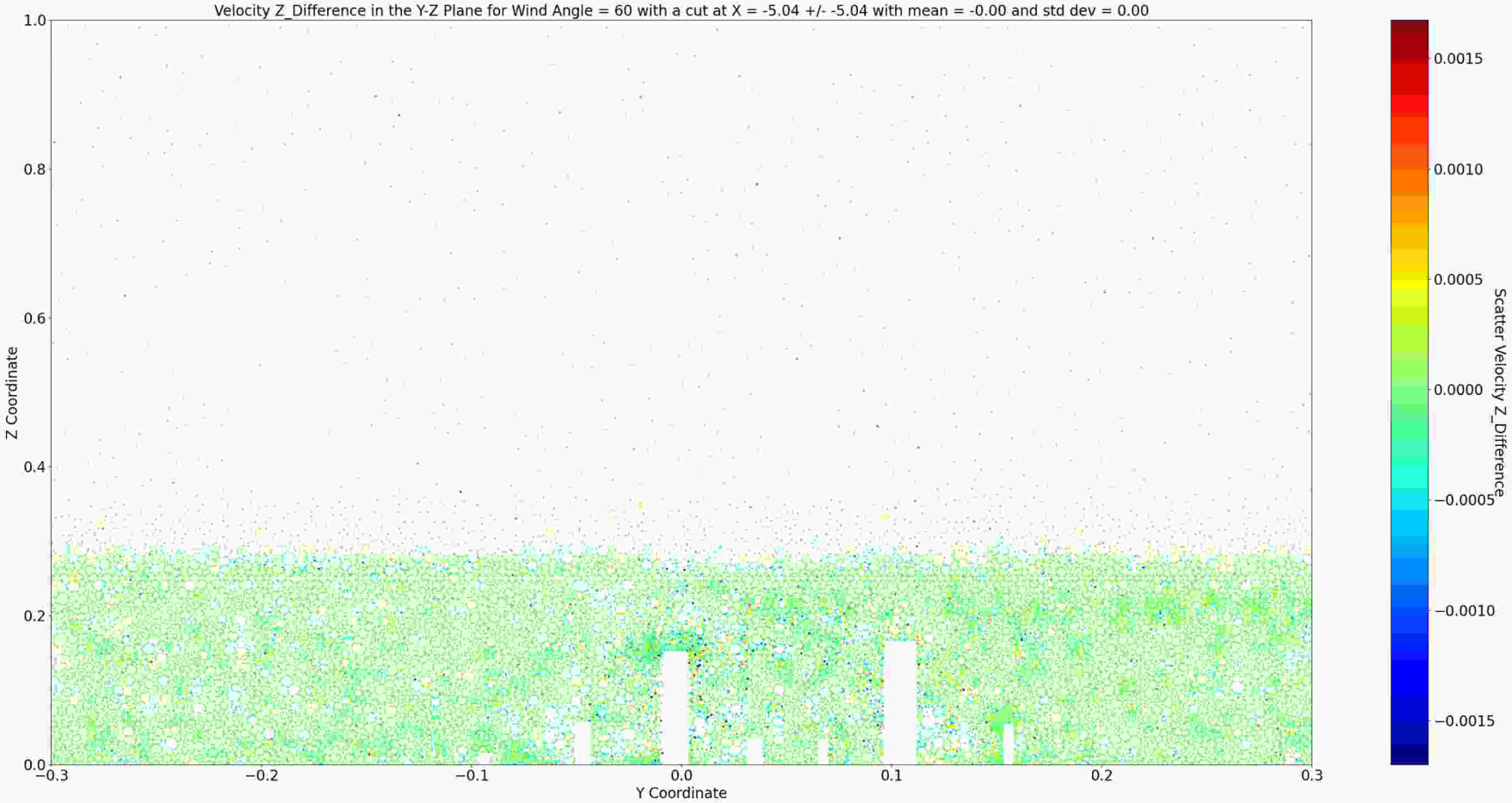


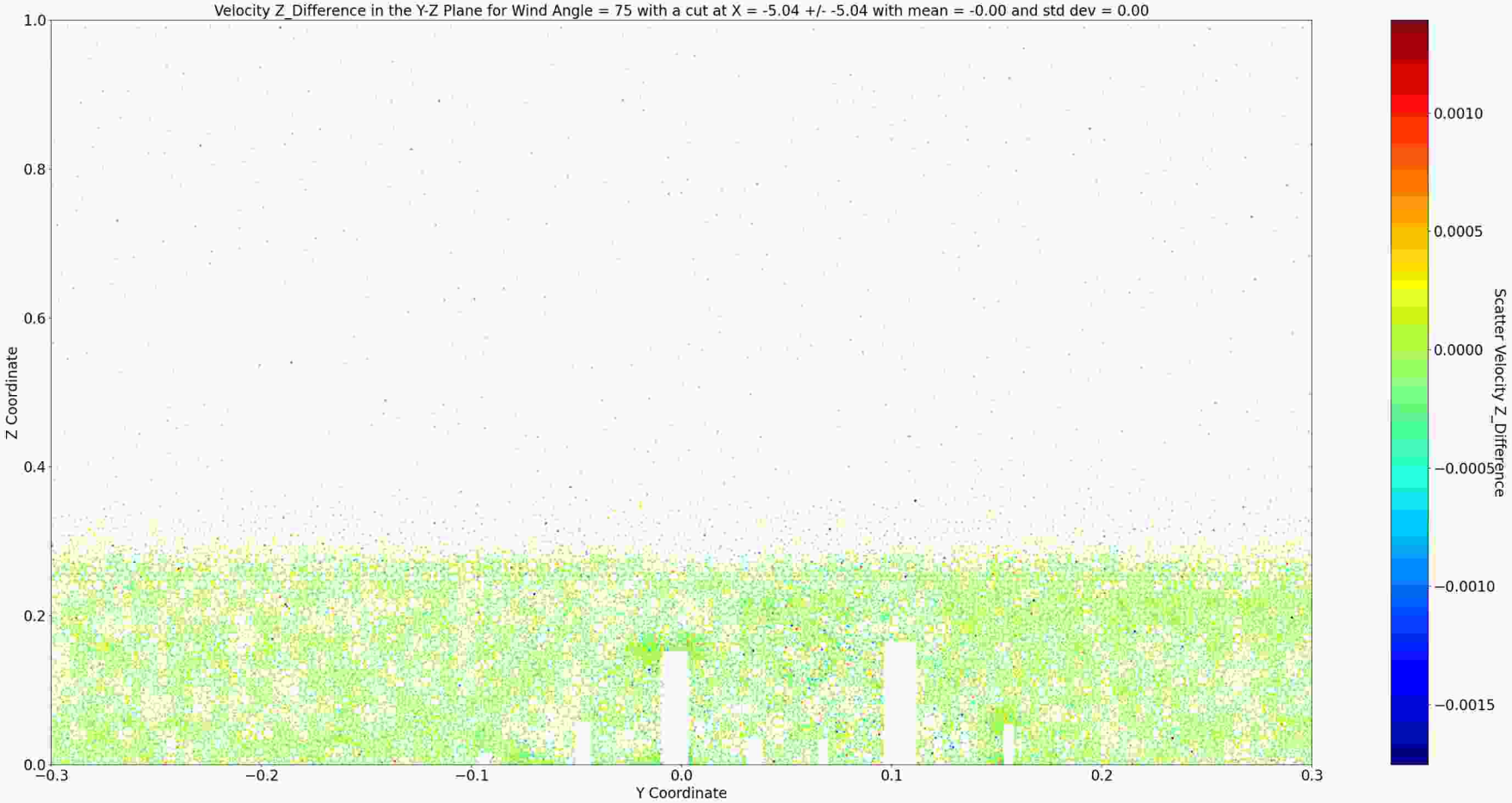

Velocity Z_Difference in the Y-Z Plane for Wind Angle = 0 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity Z_Difference
0.010
0.005
0.000
−0.005
−0.010
−0.015
−0.020
−0.025

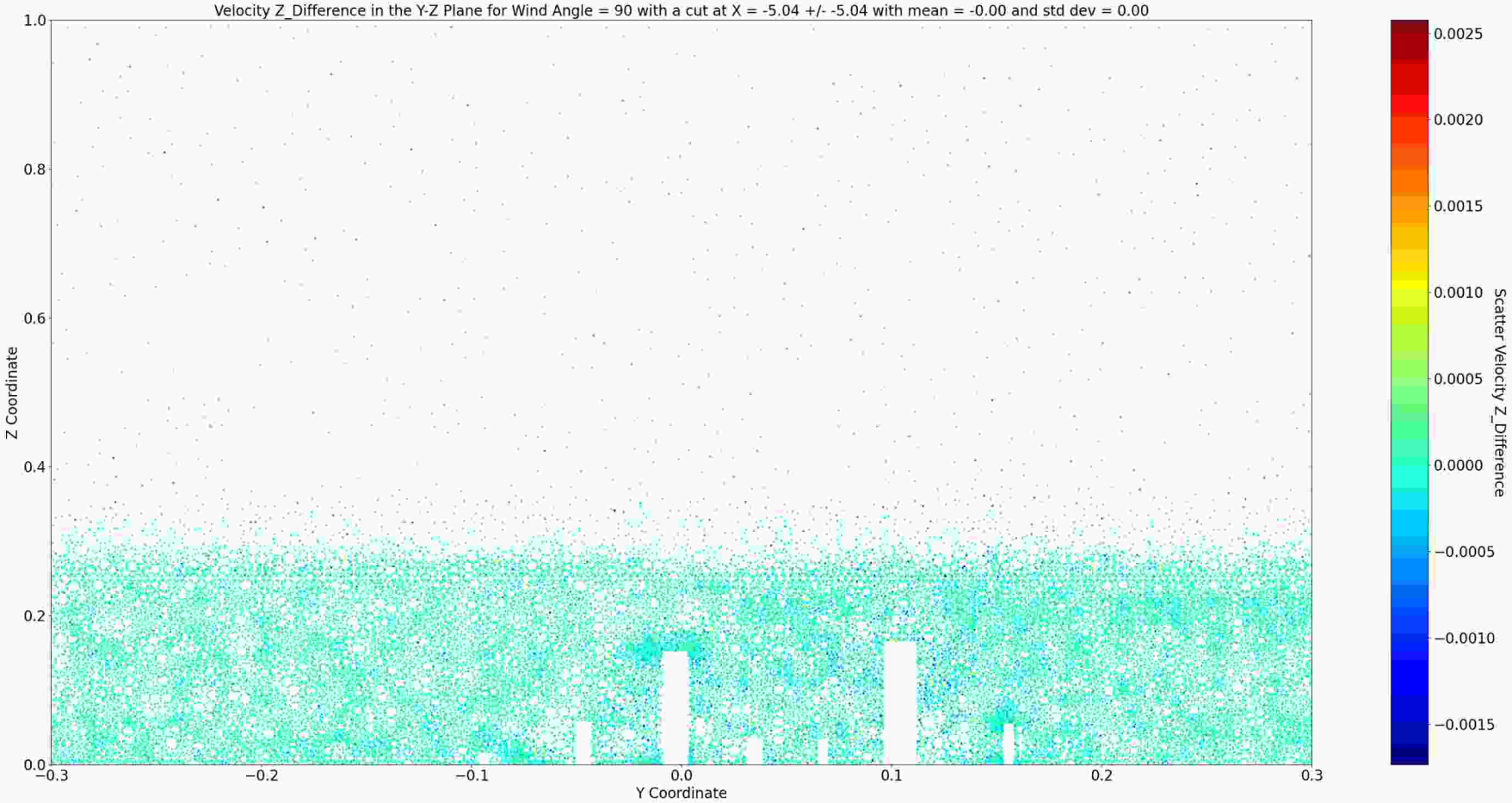

Velocity Z_Difference in the Y-Z Plane for Wind Angle = 15 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0020
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015

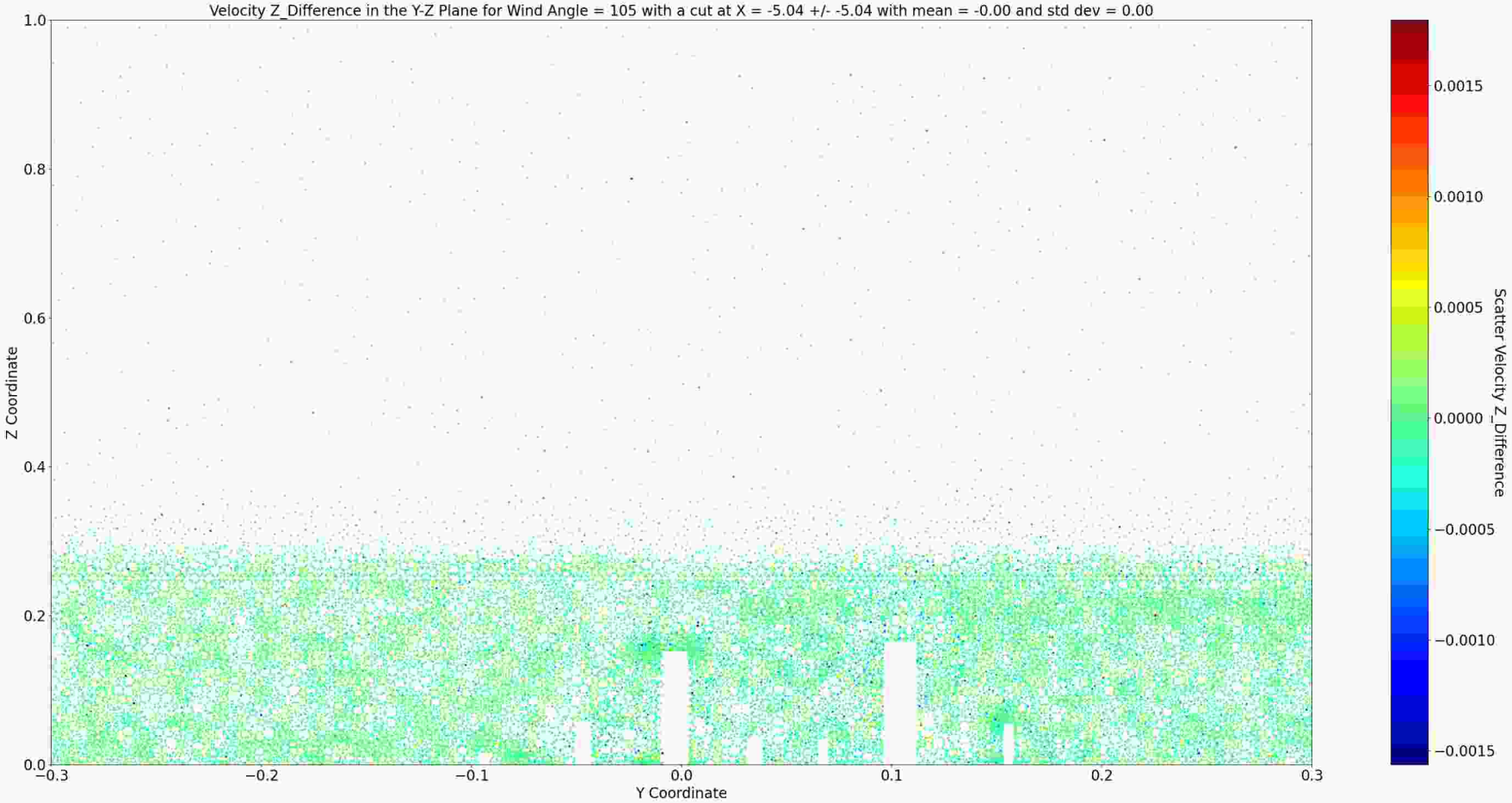

Velocity Z_Difference in the Y-Z Plane for Wind Angle = 30 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015

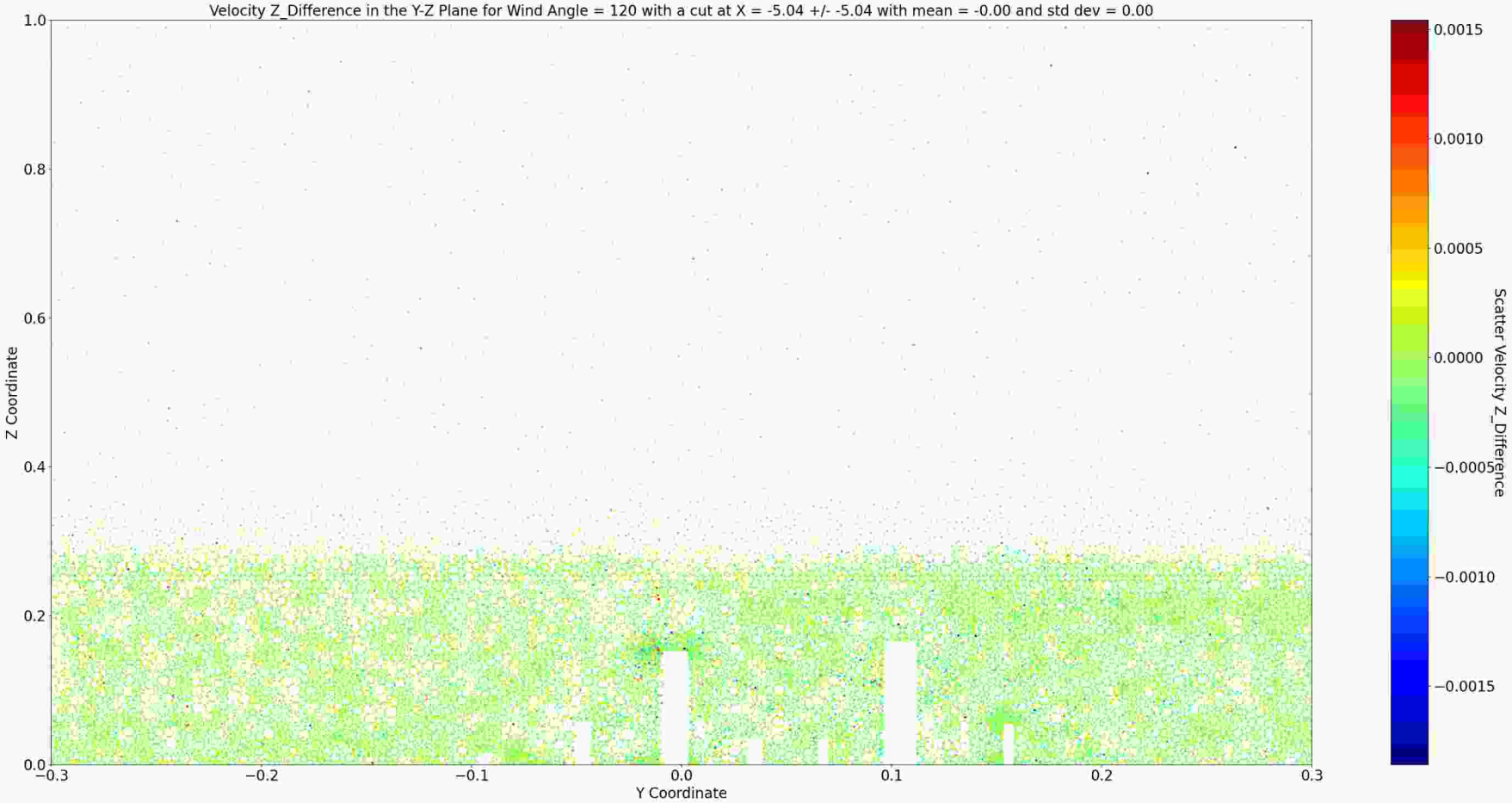

Velocity Z_Difference in the Y-Z Plane for Wind Angle = 45 with a cut at X = -5.04 +/- -5.04 with mean = 0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0020
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015

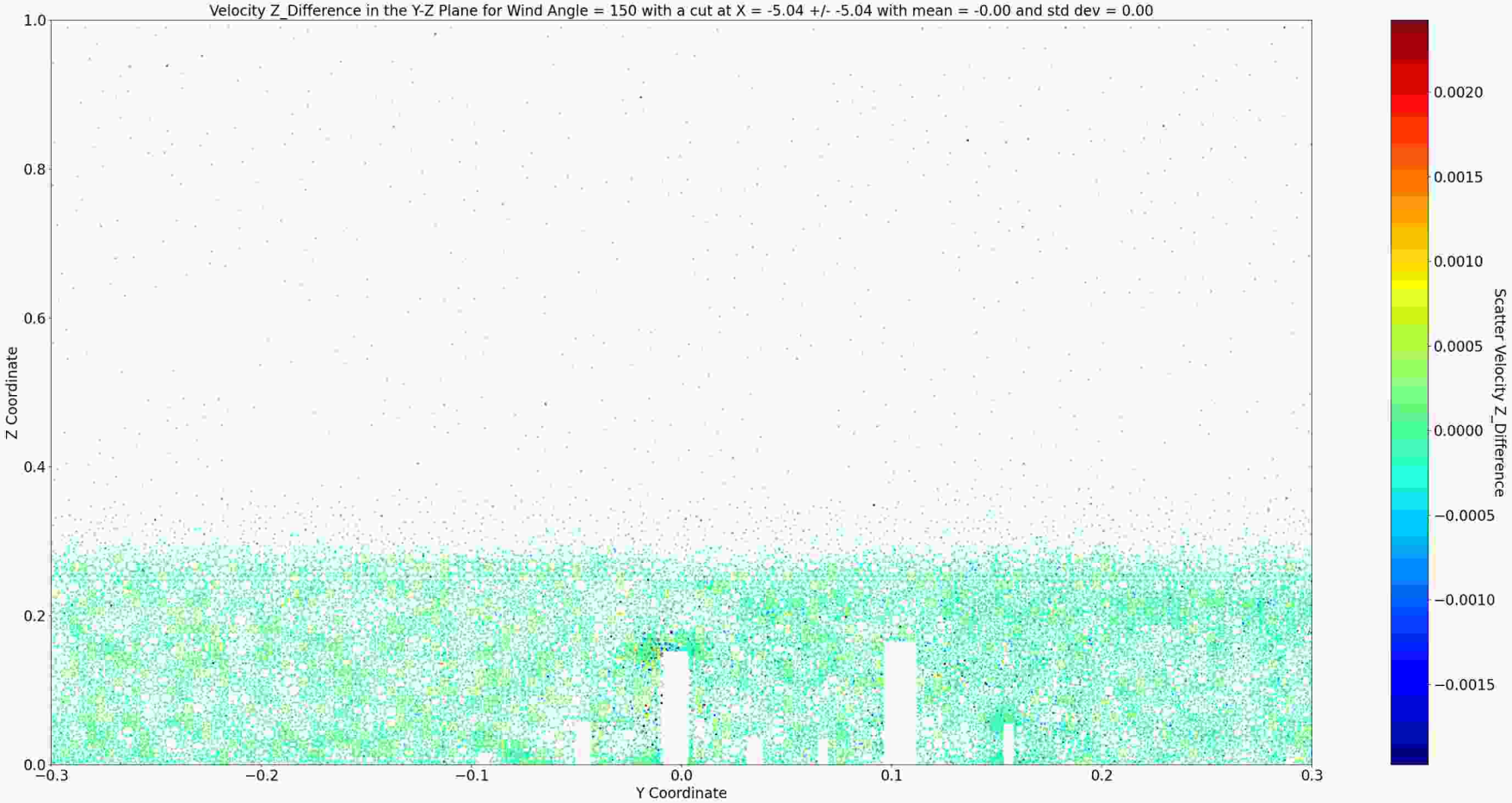

Velocity Z_Difference in the Y-Z Plane for Wind Angle = 60 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015

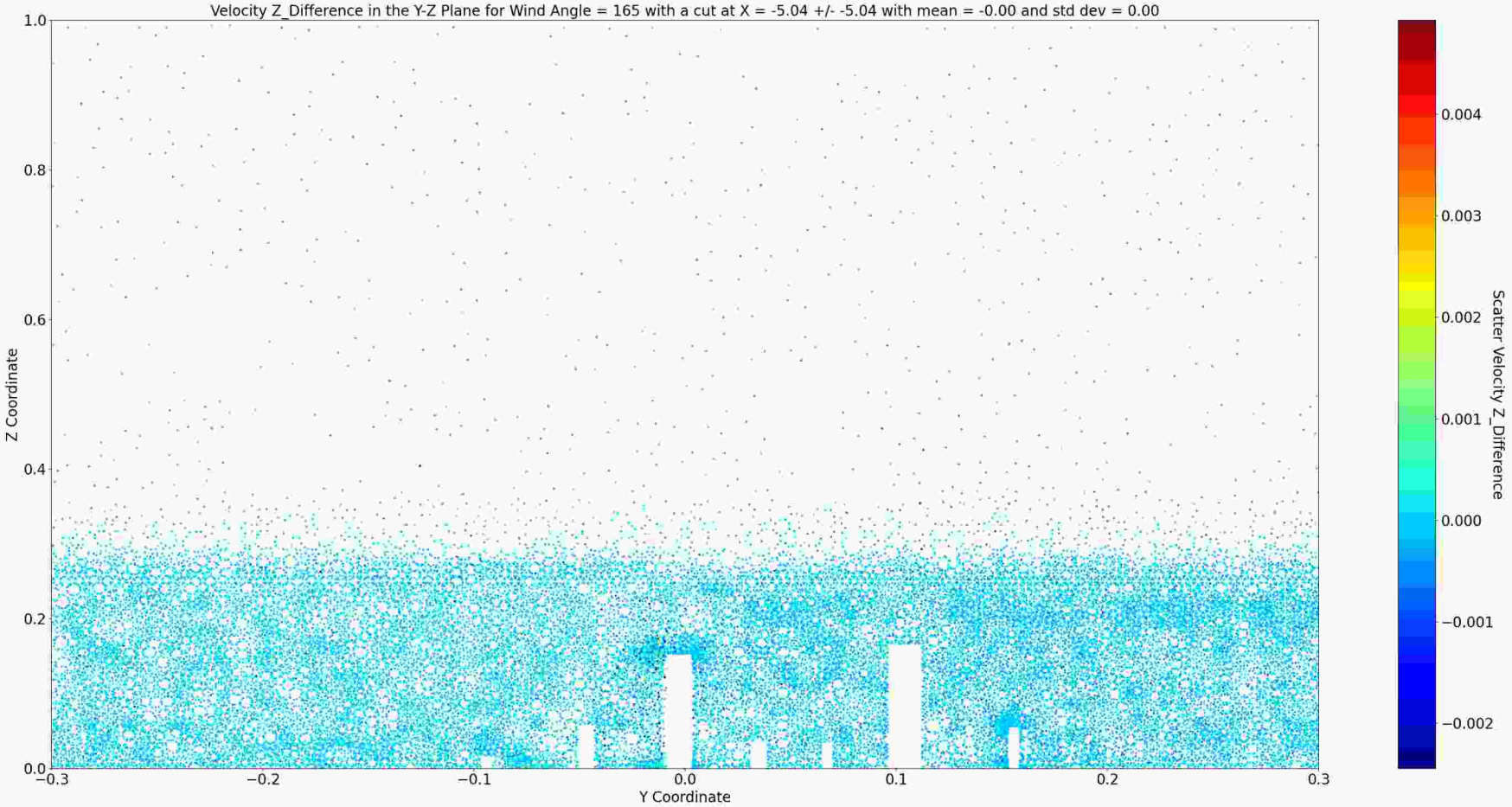

Velocity Z_Difference in the Y-Z Plane for Wind Angle = 75 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015

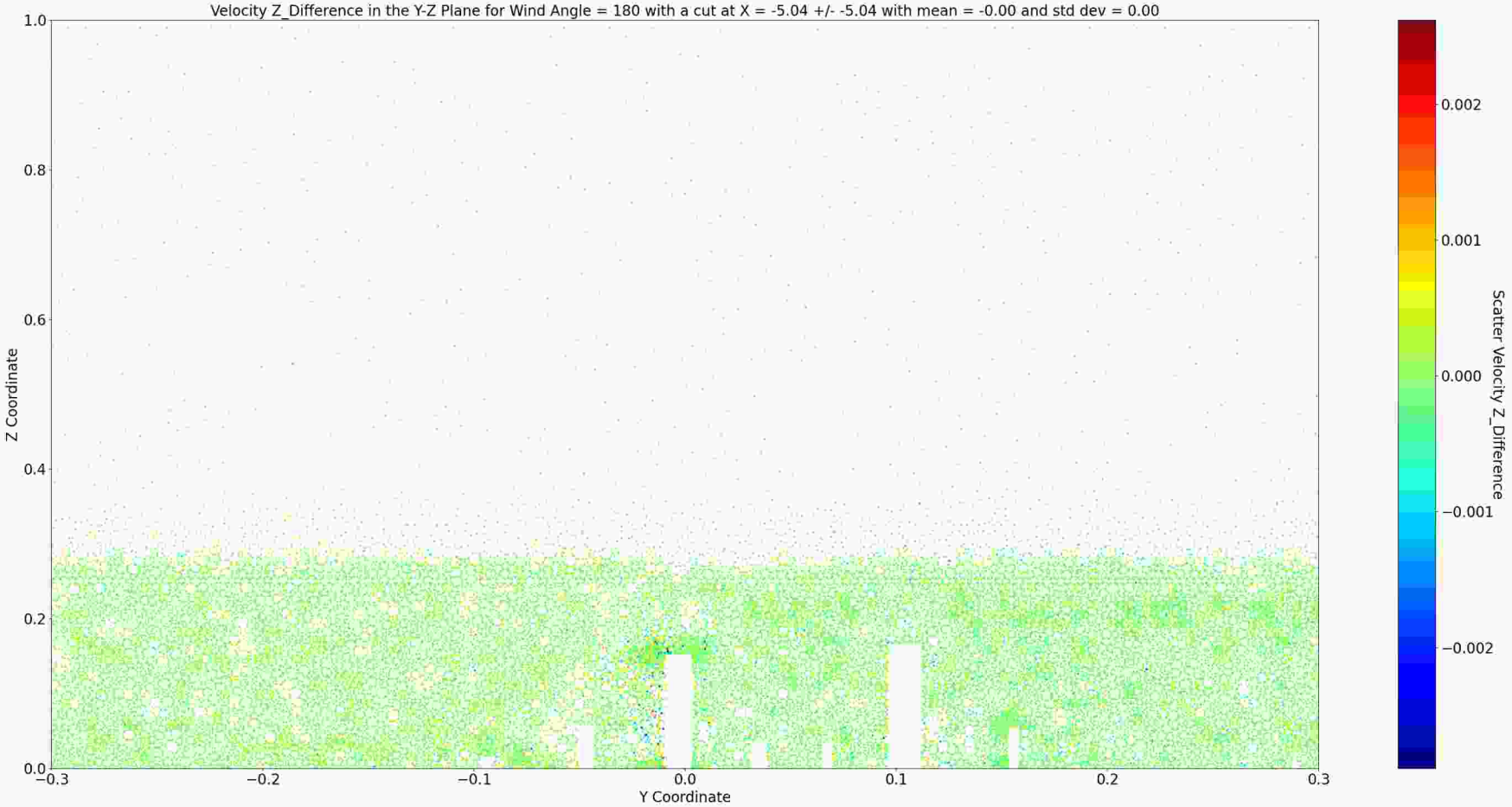

Velocity Z_Difference in the Y-Z Plane for Wind Angle = 90 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015


Velocity Z_Difference in the Y-Z Plane for Wind Angle = 105 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015


Velocity Z_Difference in the Y-Z Plane for Wind Angle = 120 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015


Velocity Z_Difference in the Y-Z Plane for Wind Angle = 150 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.0020
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015


Velocity Z_Difference in the Y-Z Plane for Wind Angle = 165 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.004
0.003
0.002
0.001
0.000
−0.001
−0.002

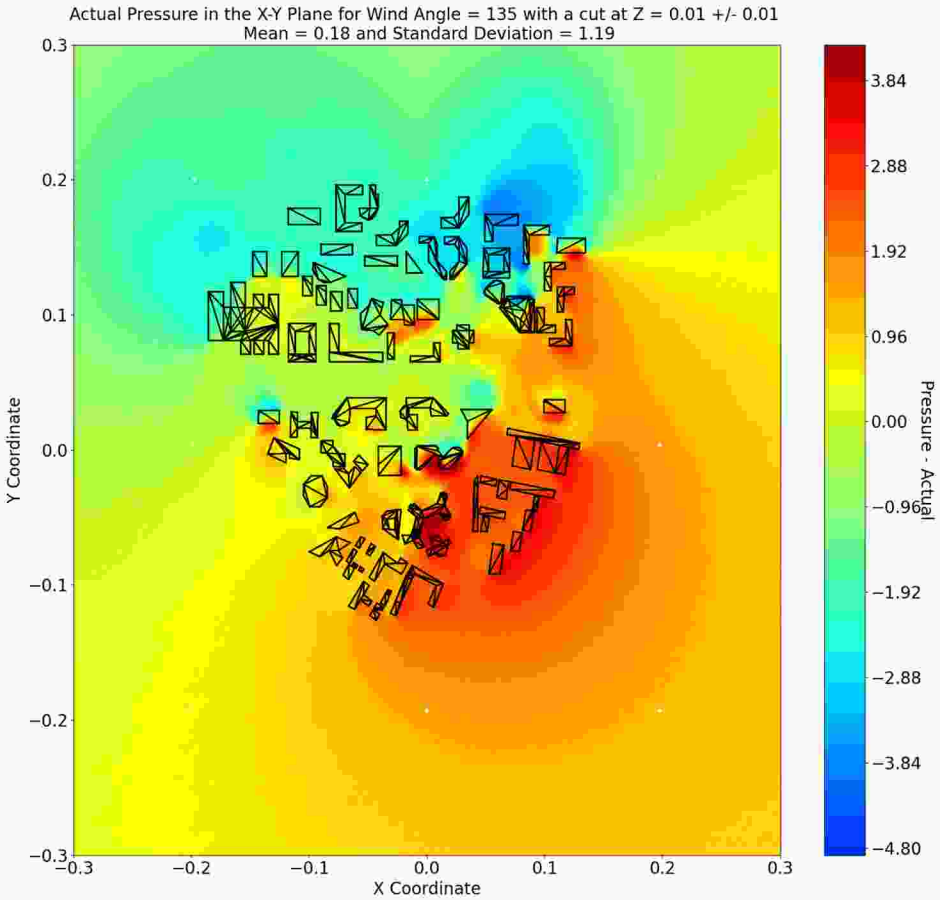

Velocity Z_Difference in the Y-Z Plane for Wind Angle = 180 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.00
Z Coordinate
Y Coordinate
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity Z_Difference
0.002
0.001
0.000
−0.001
−0.002

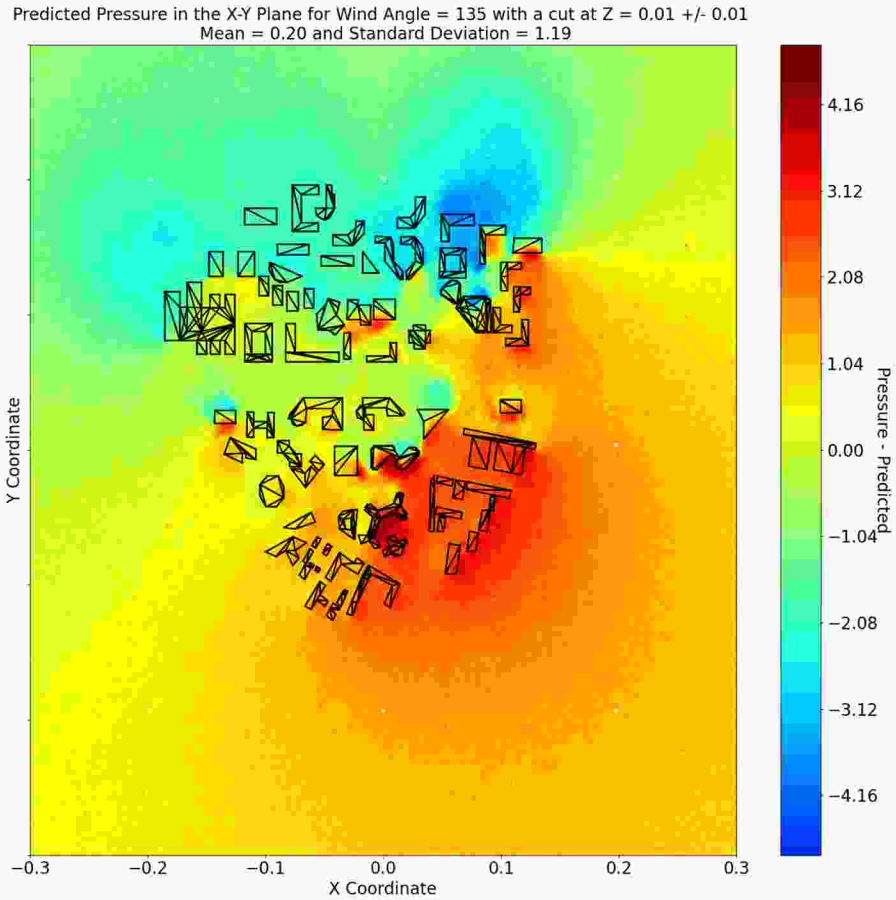
Progress so far - Data Loss Only Standard Normal Scalar – ELU Activation (Adam Optimizer)

POD Dataset, GPU Laptop
103900 Epochs

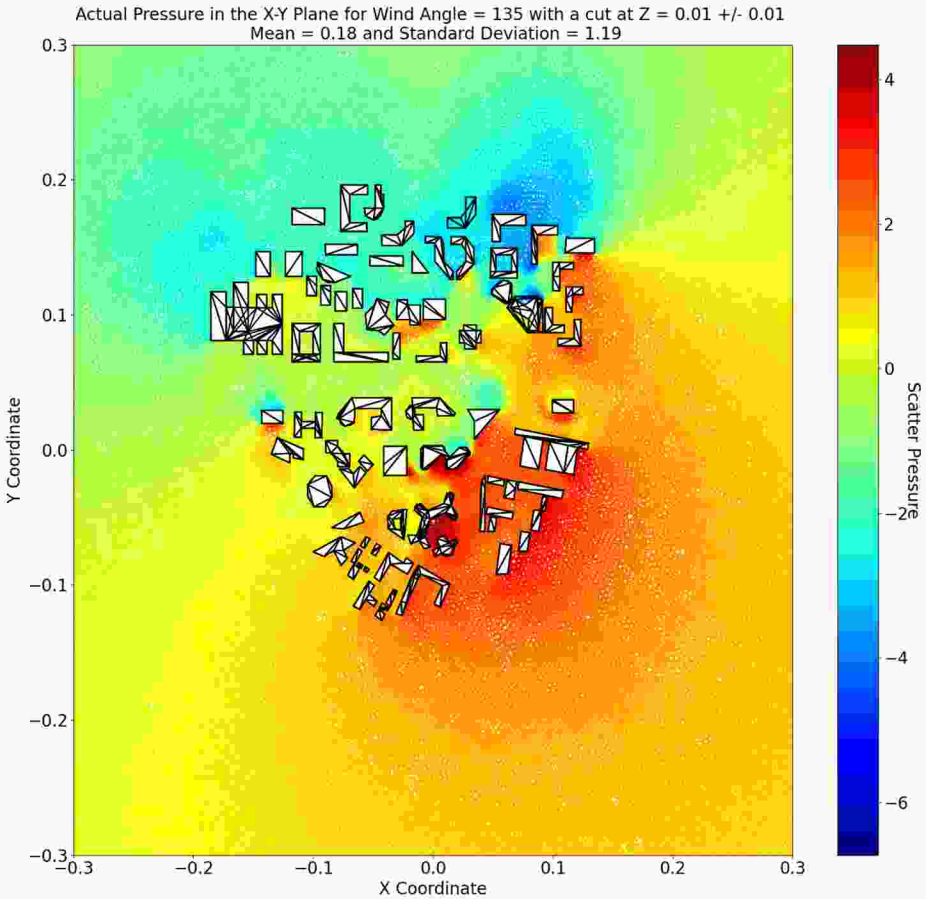
Scripts v5 – VALIDATION (135)

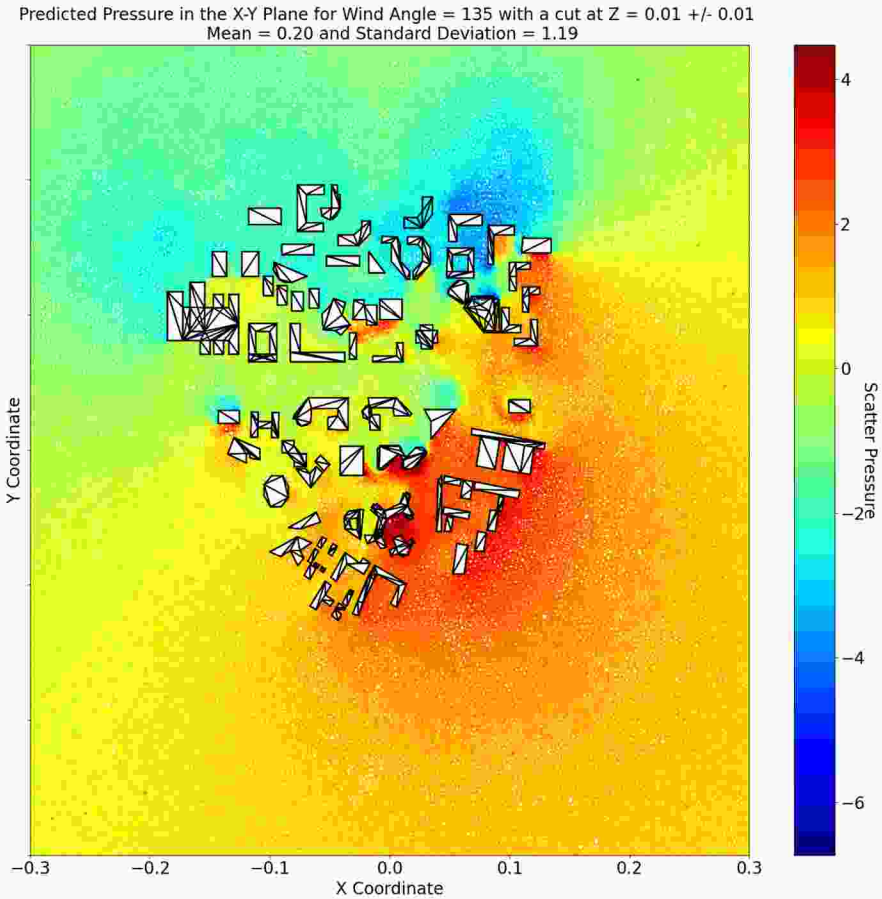
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

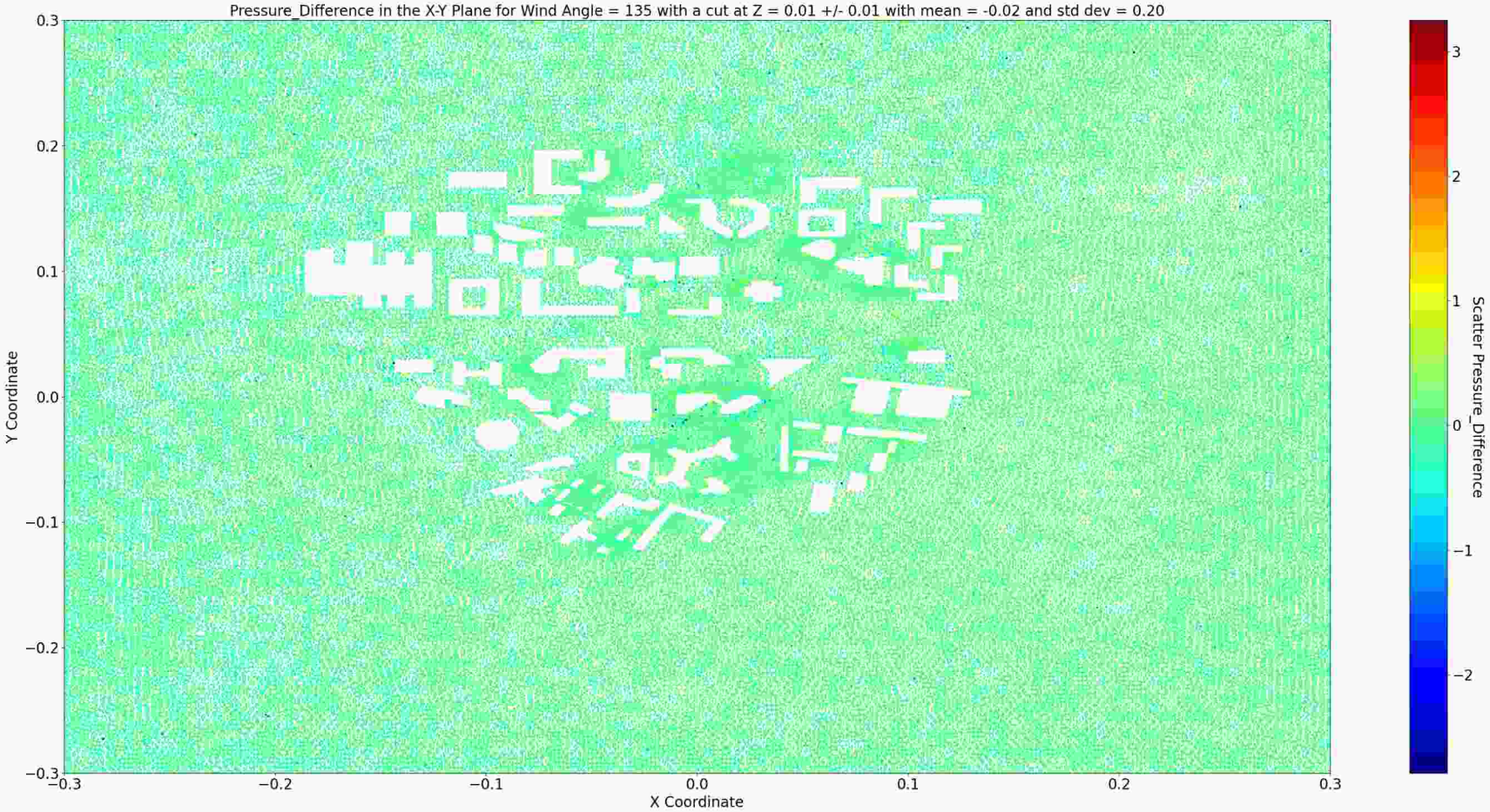




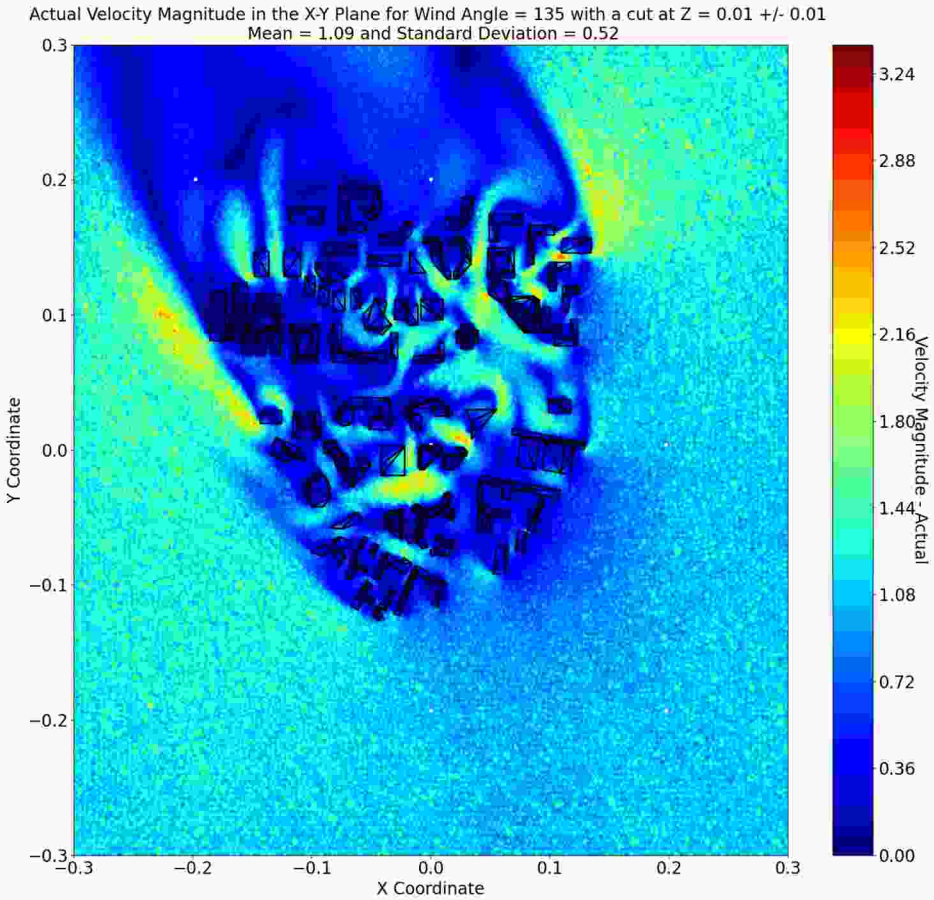
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

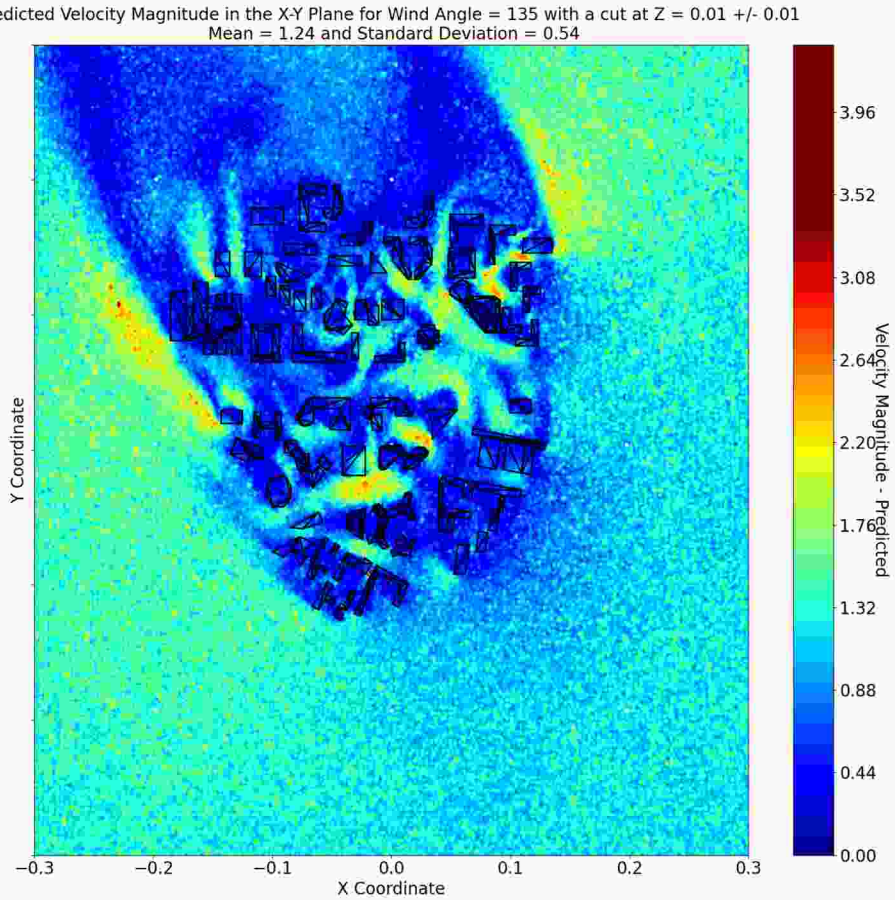




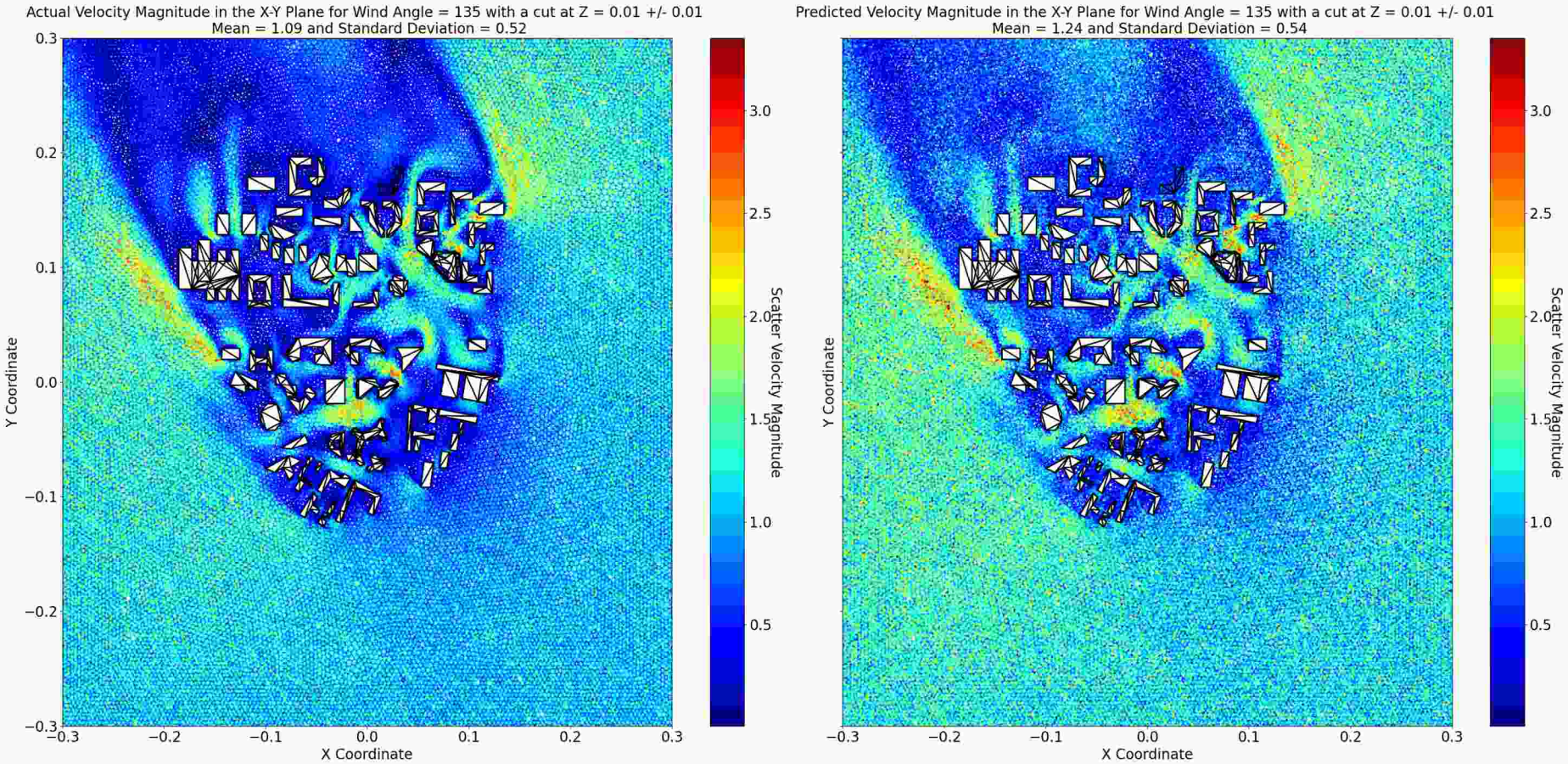

Pressure_Difference in the X-Y Plane for Wind Angle = 135 with a cut at Z = 0.01 +/- 0.01 with mean = -0.02 and std dev = 0.20
Y Coordinate
X Coordinate
Scatter Pressure_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
3
2
1
0
−1
−2

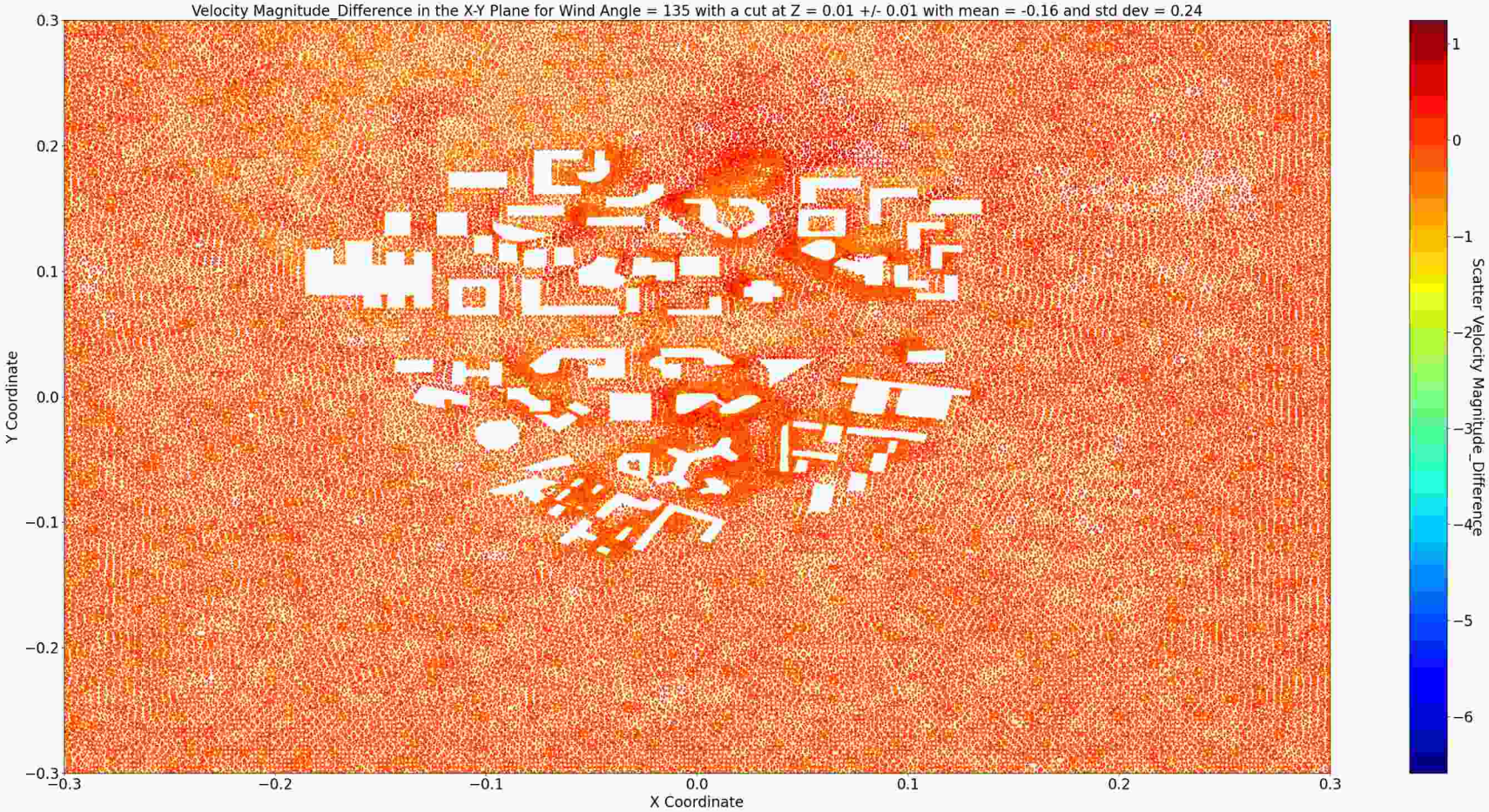
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



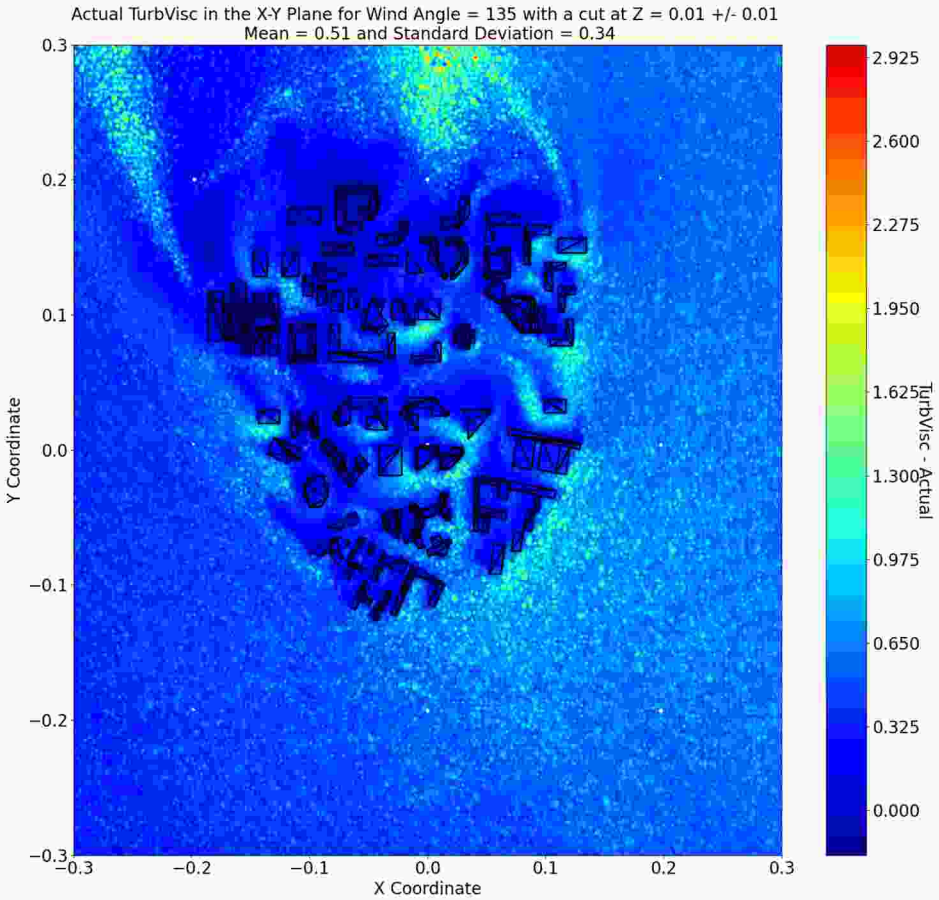


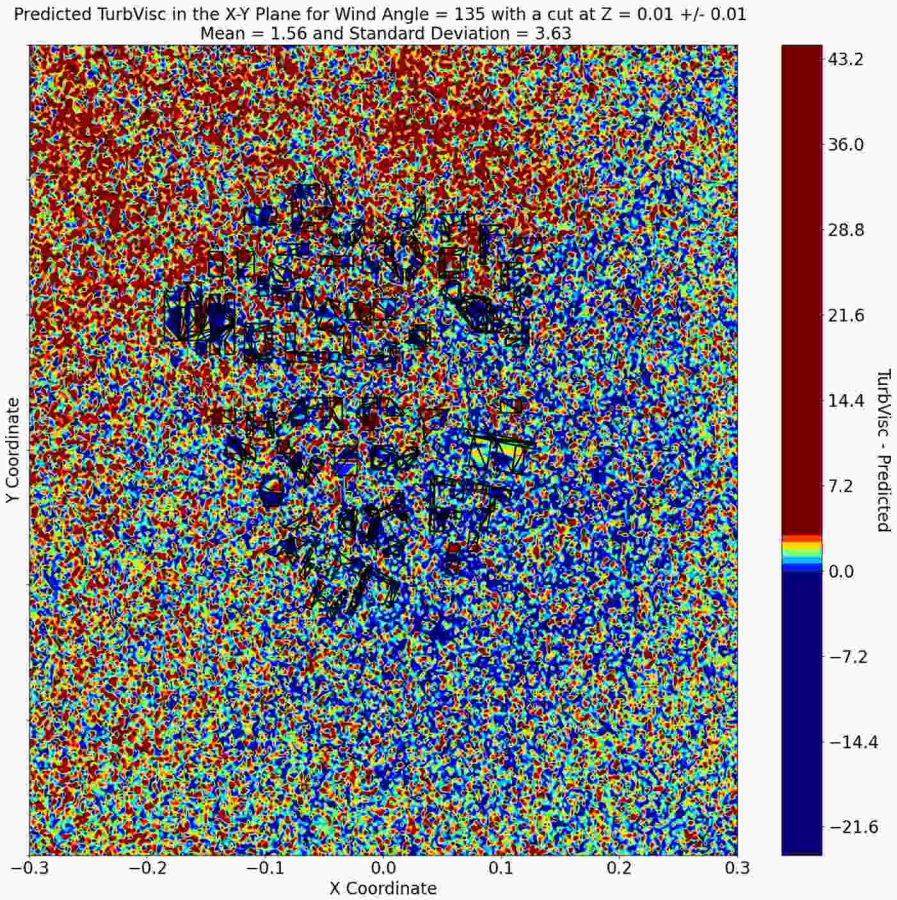
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



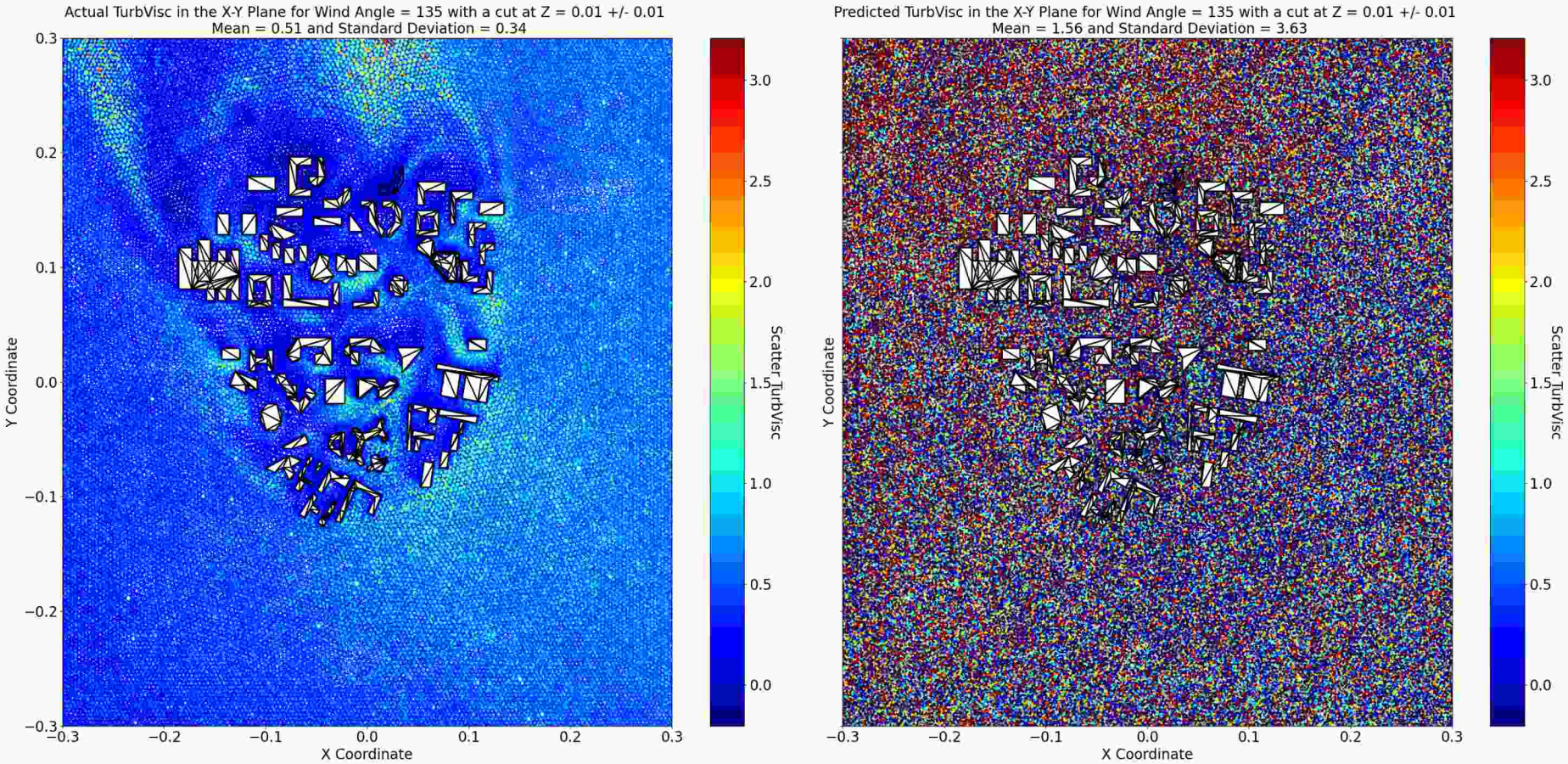

Velocity Magnitude_Difference in the X-Y Plane for Wind Angle = 135 with a cut at Z = 0.01 +/- 0.01 with mean = -0.16 and std dev = 0.24
Y Coordinate
X Coordinate
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
Scatter Velocity Magnitude_Difference
1
0
−1
−2
−3
−4
−5
−6

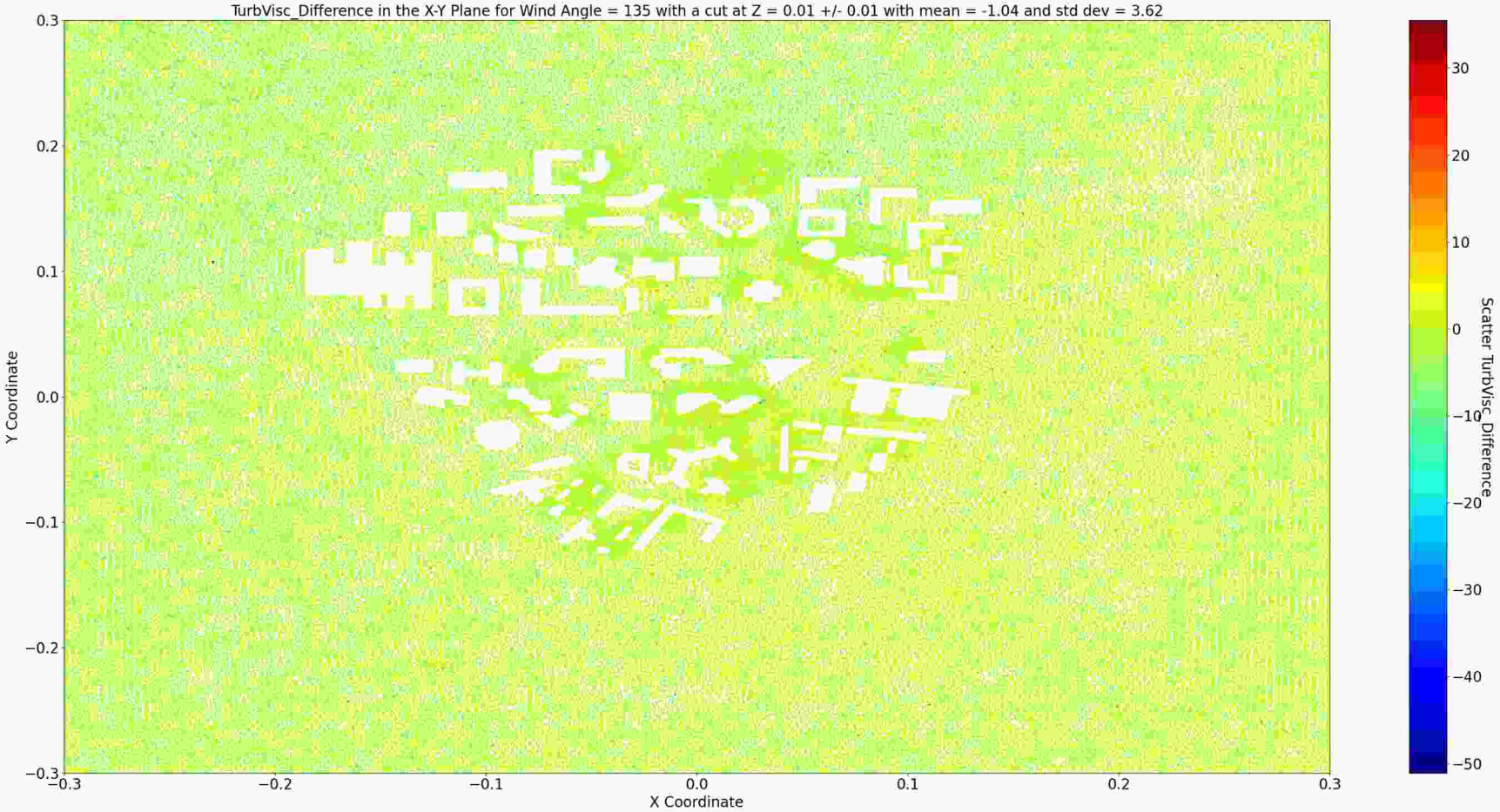
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



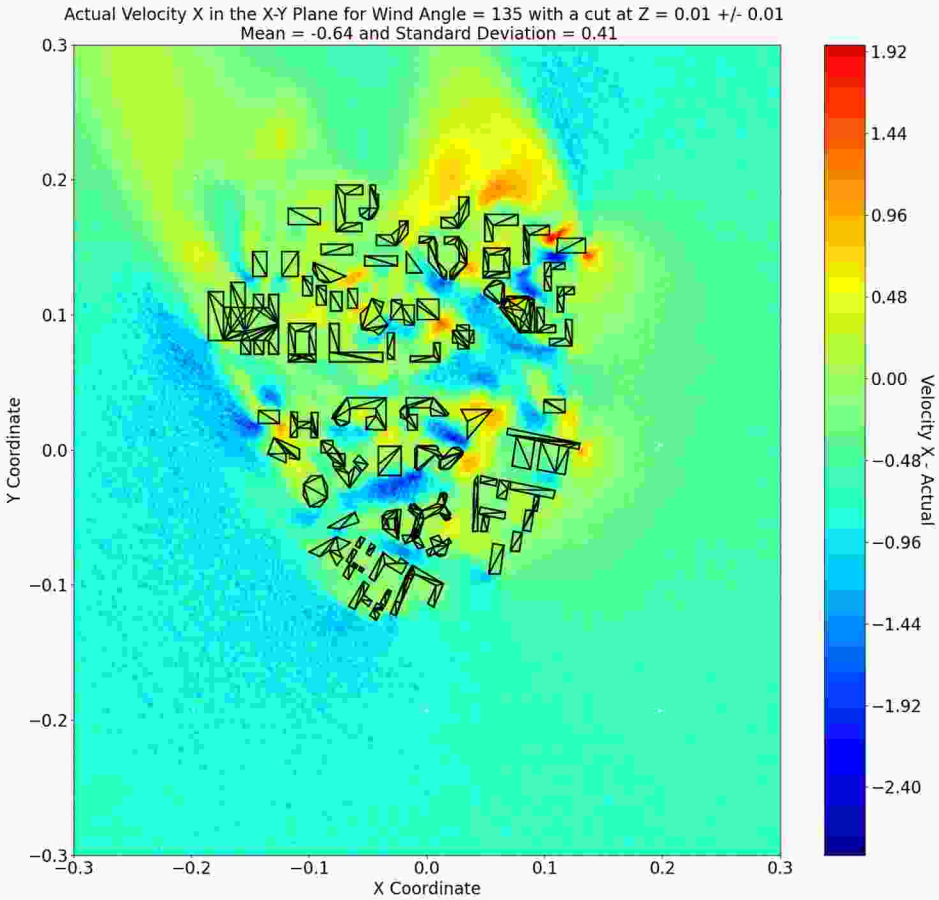


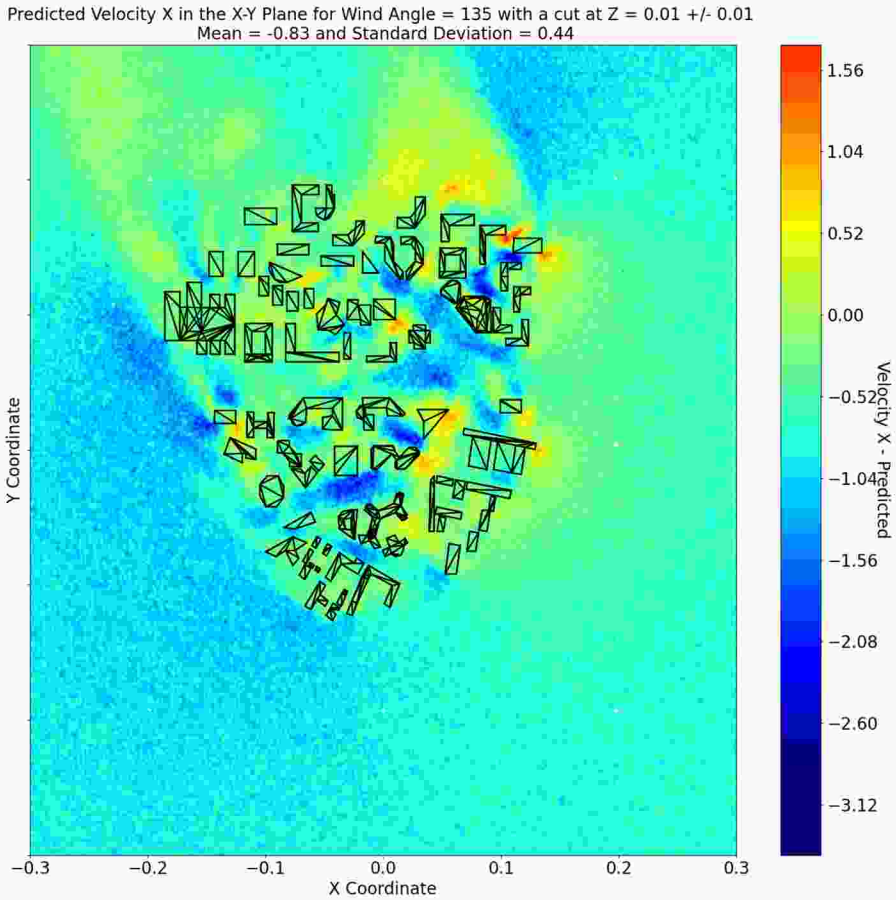
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



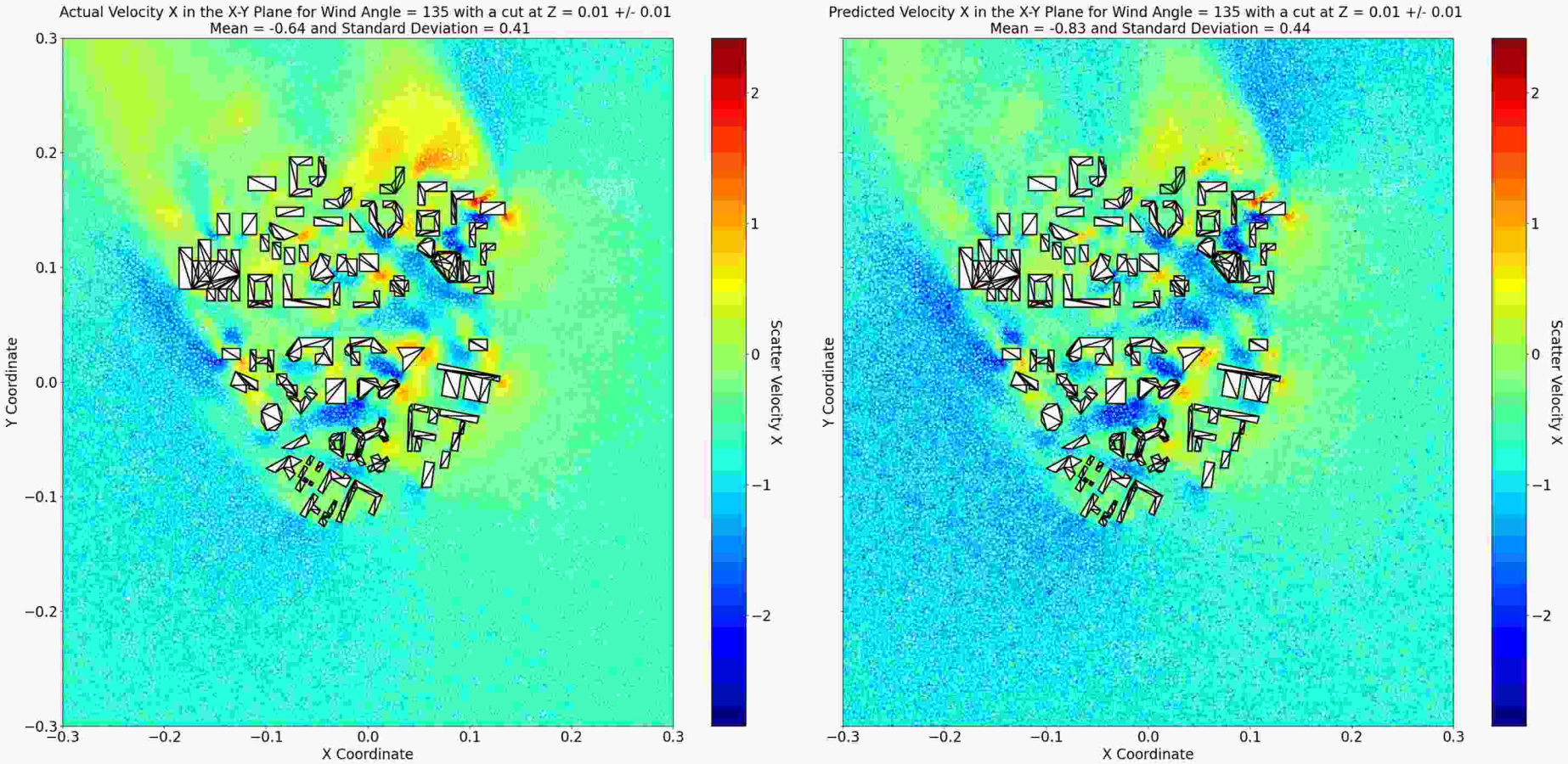

TurbVisc_Difference in the X-Y Plane for Wind Angle = 135 with a cut at Z = 0.01 +/- 0.01 with mean = -1.04 and std dev = 3.62
Y Coordinate
X Coordinate
Scatter TurbVisc_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
30
20
10
0
−10
−20
−30
−40
−50

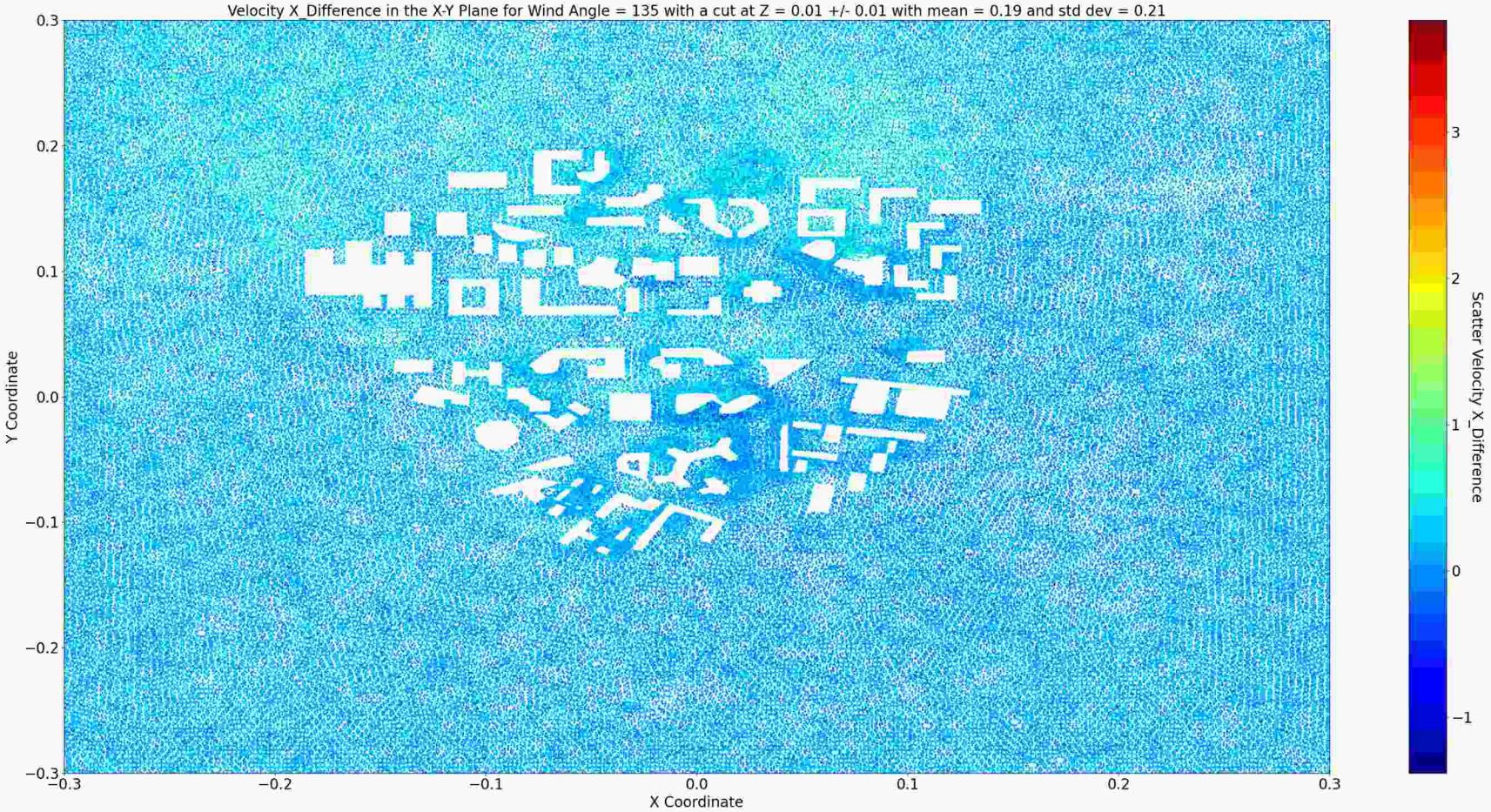
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



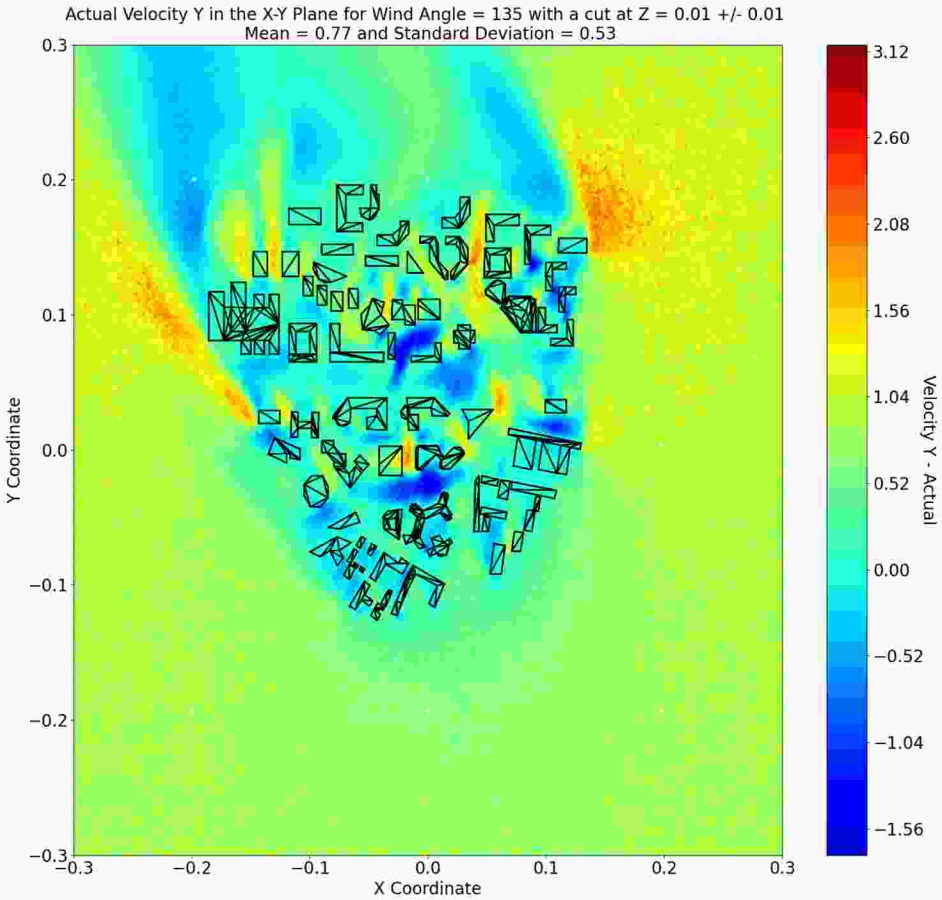


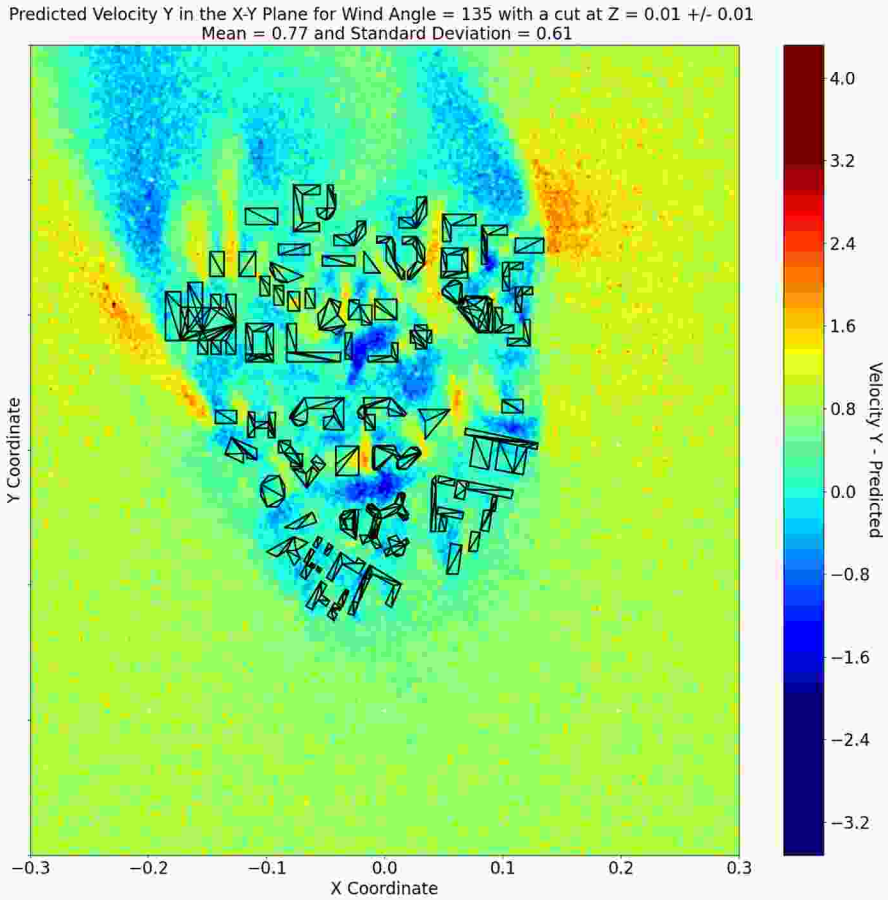
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



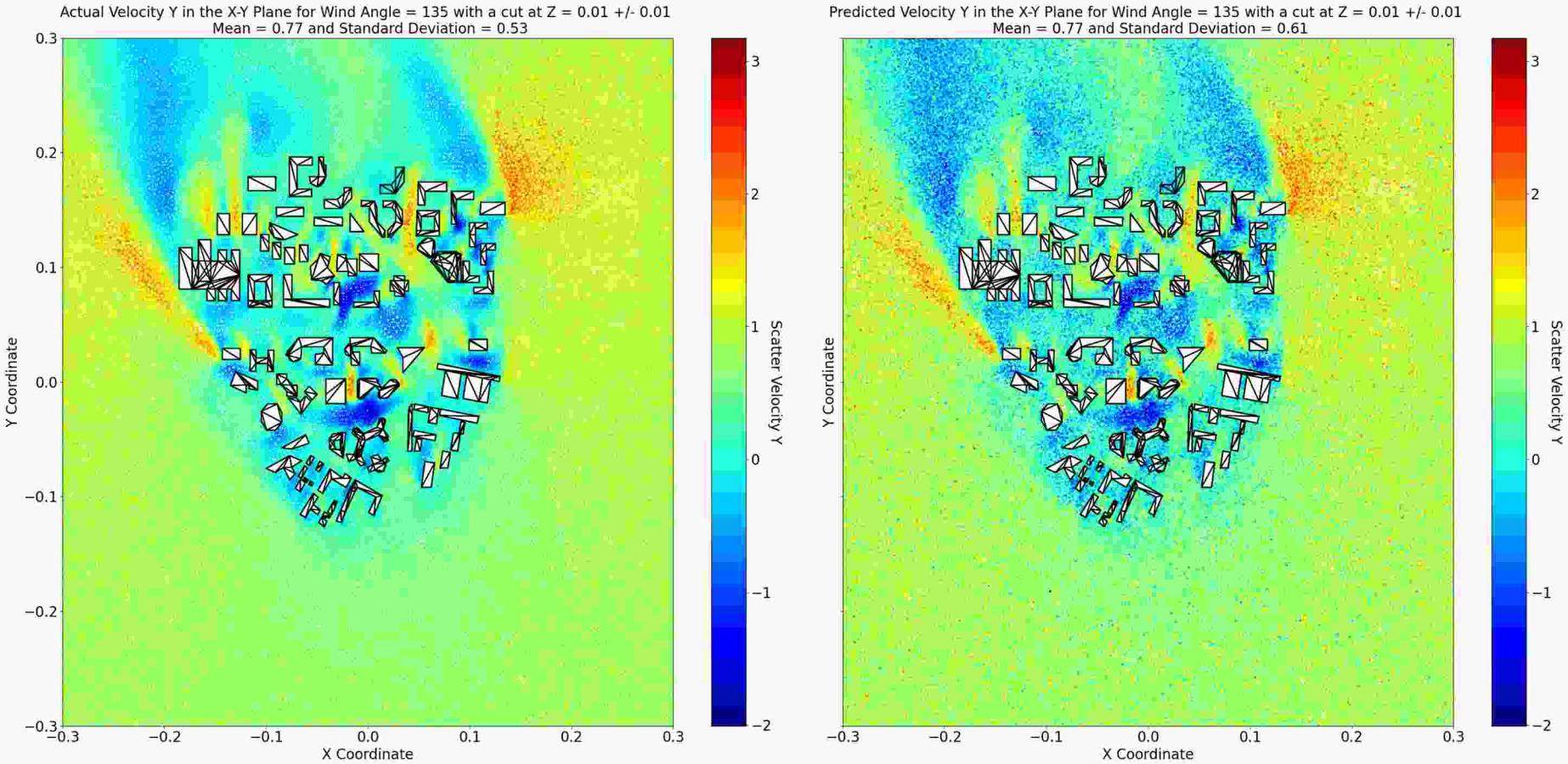

Velocity X_Difference in the X-Y Plane for Wind Angle = 135 with a cut at Z = 0.01 +/- 0.01 with mean = 0.19 and std dev = 0.21
Y Coordinate
X Coordinate
Scatter Velocity X_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
3
2
1
0
−1

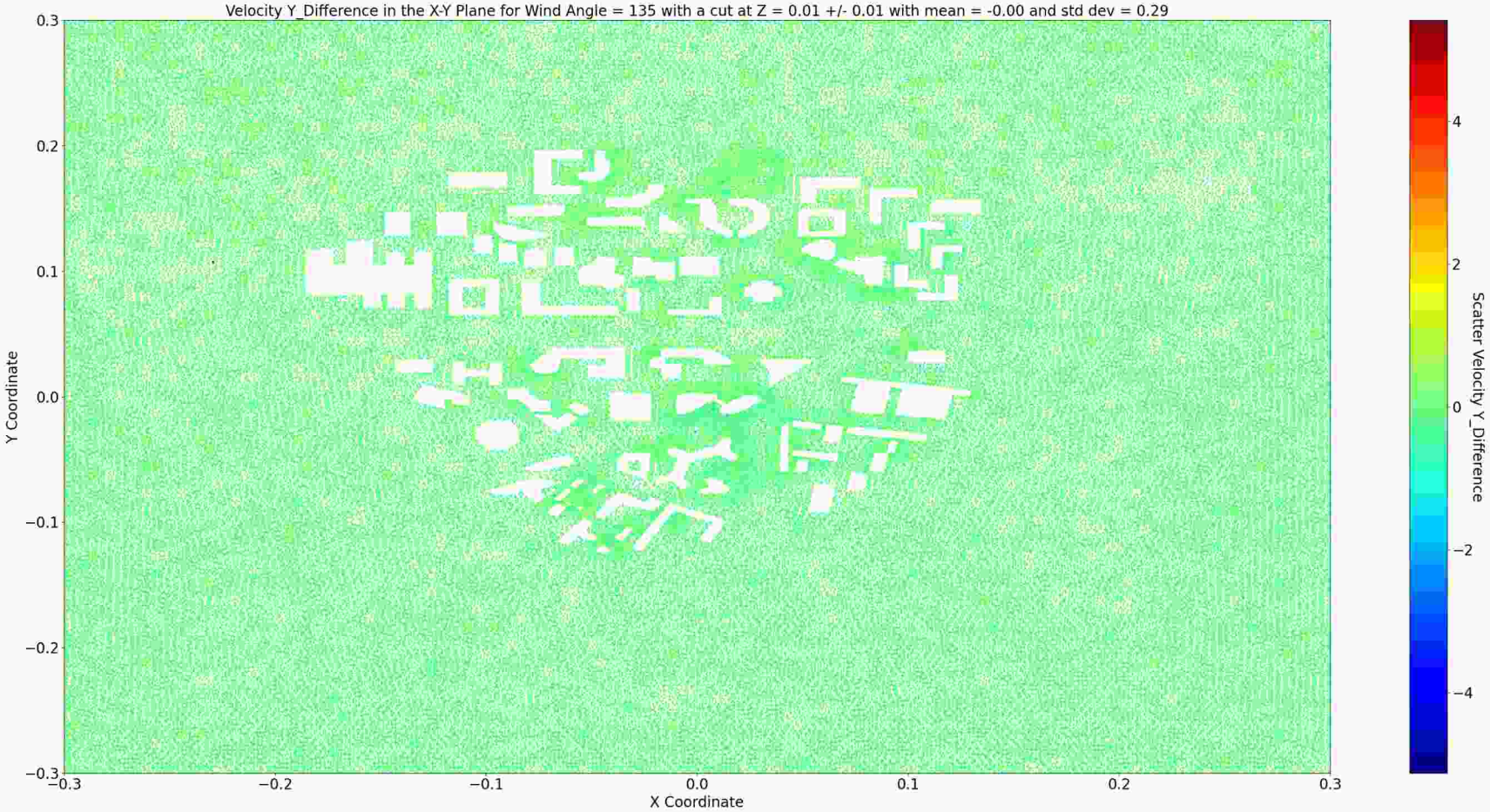
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



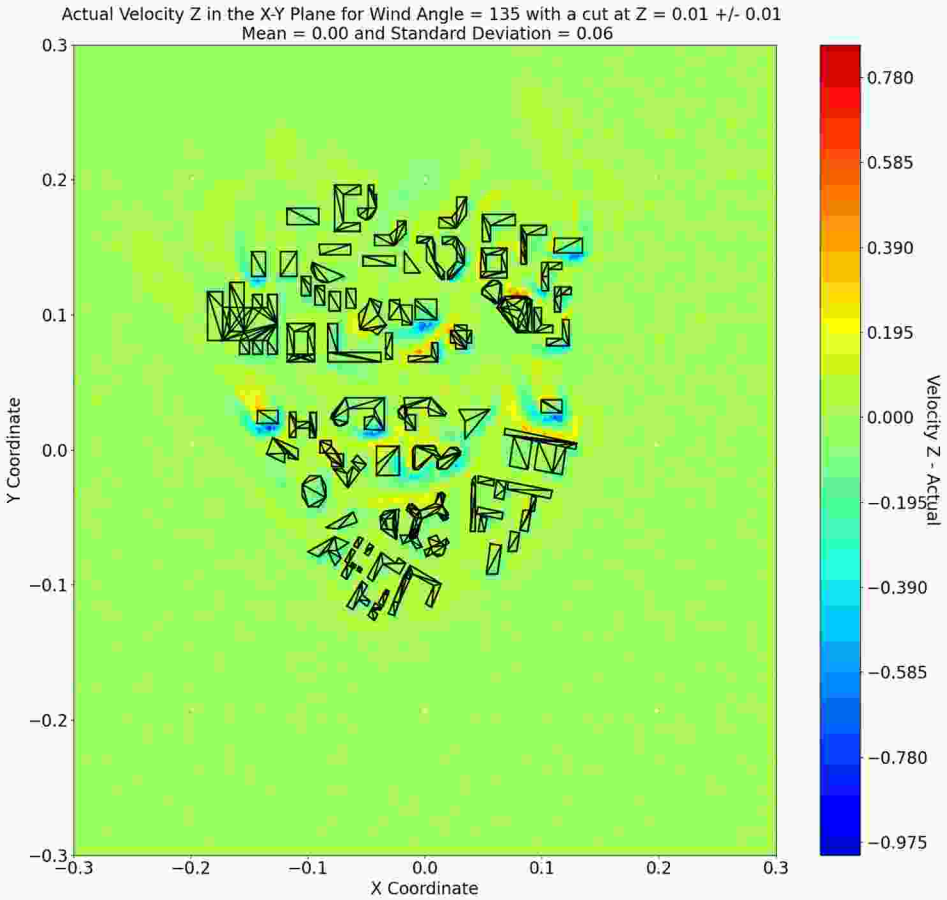


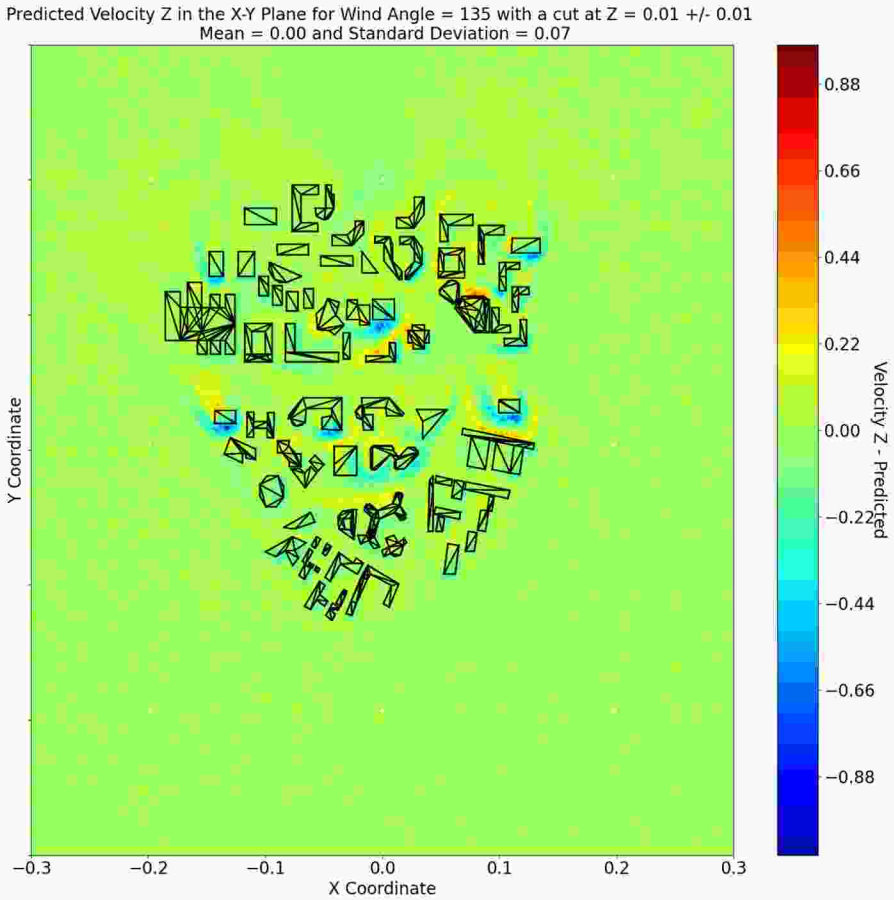
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01



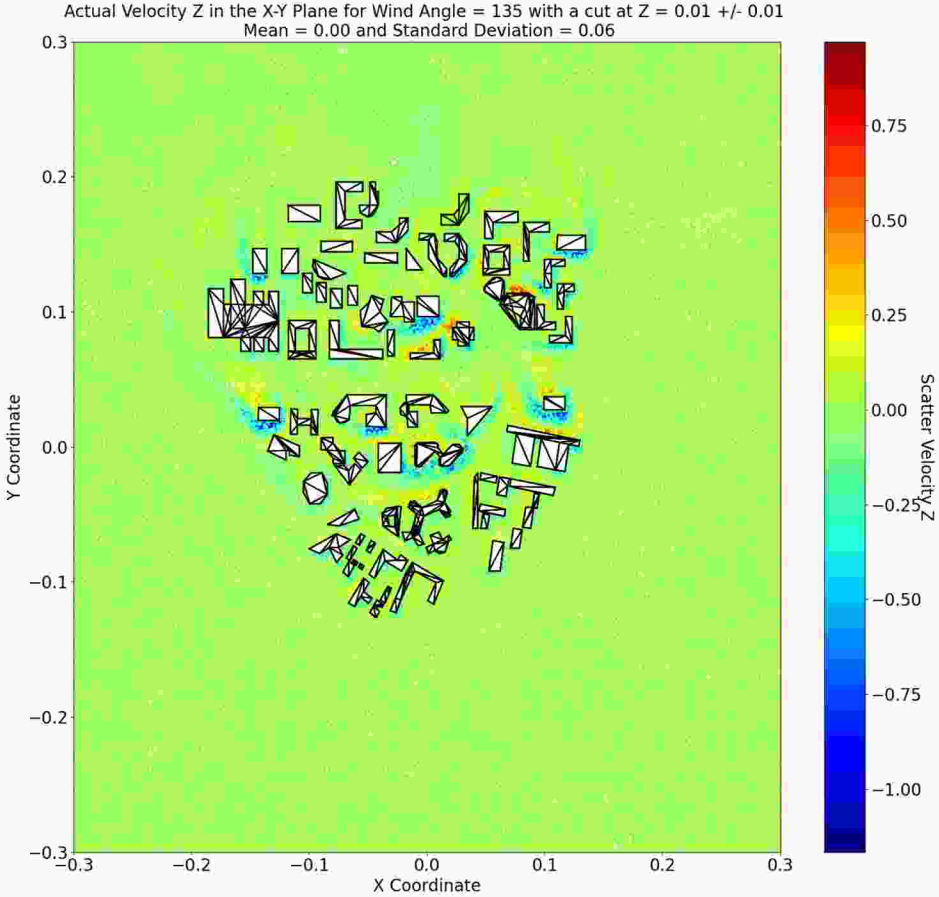

Velocity Y_Difference in the X-Y Plane for Wind Angle = 135 with a cut at Z = 0.01 +/- 0.01 with mean = -0.00 and std dev = 0.29
Y Coordinate
X Coordinate
Scatter Velocity Y_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
4
2
0
−2
−4

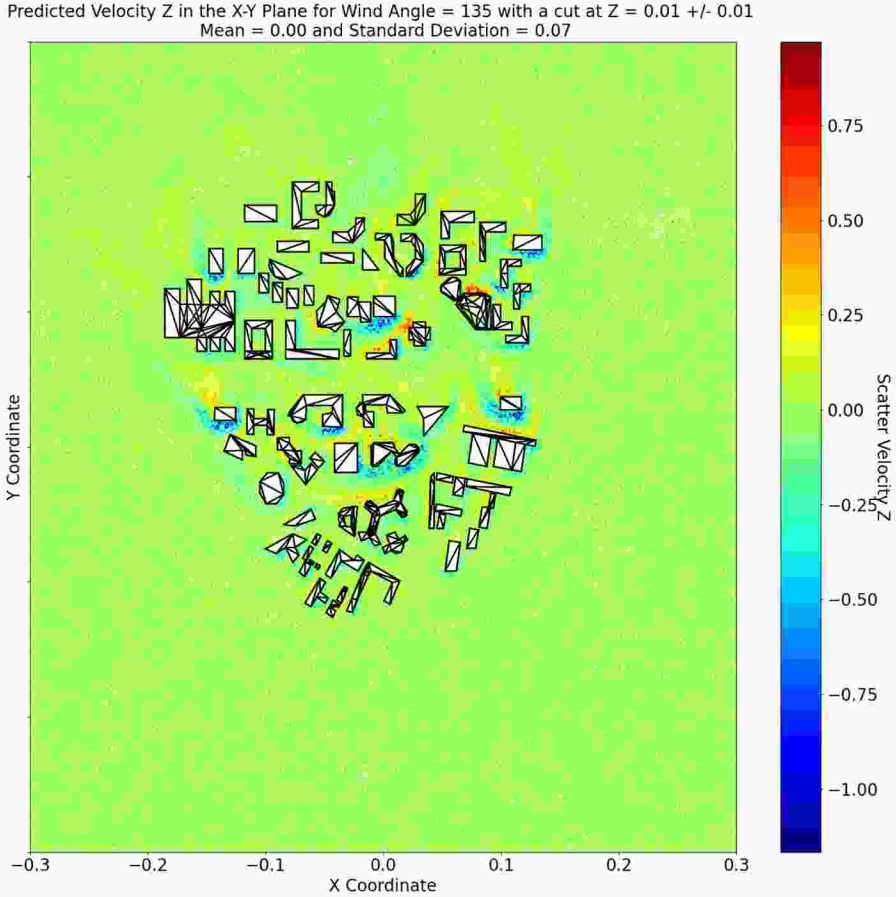
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

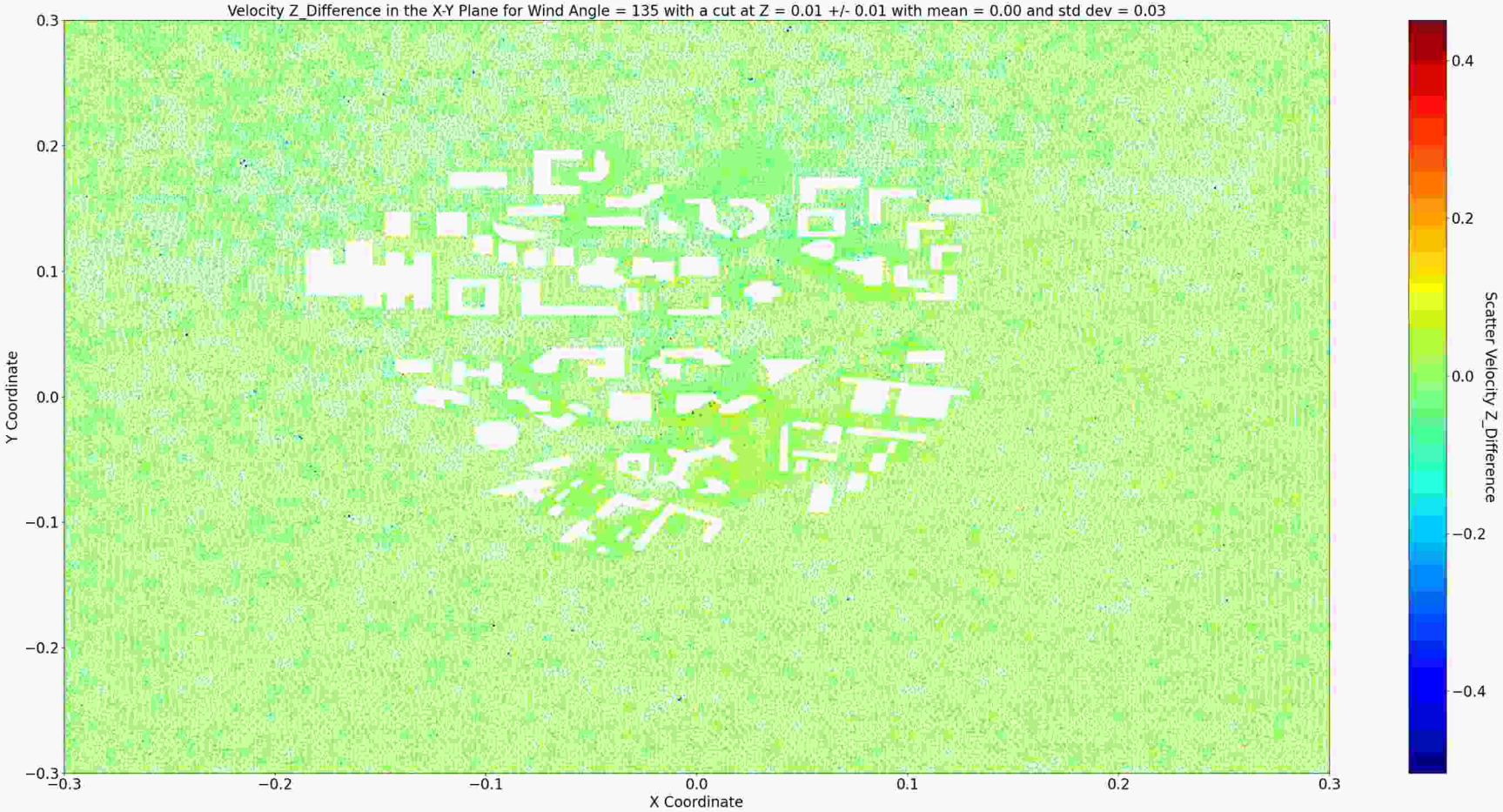




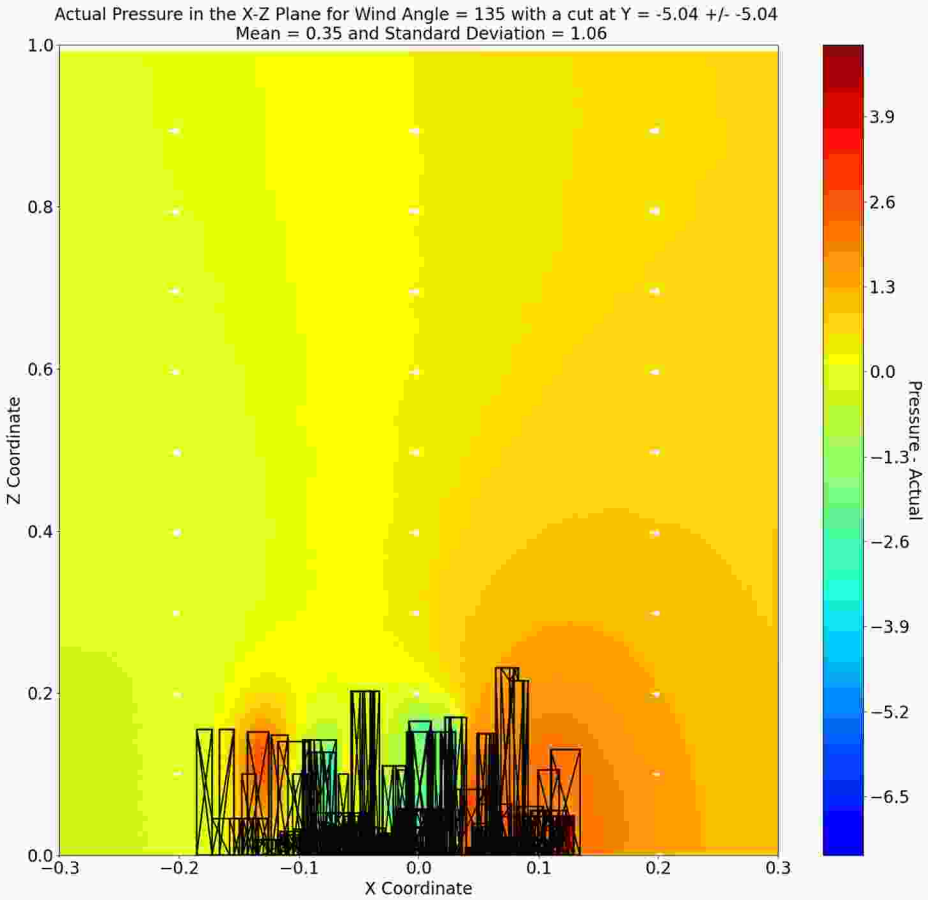
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Y Plane with a cut at Z = 0.01 +/- 0.01

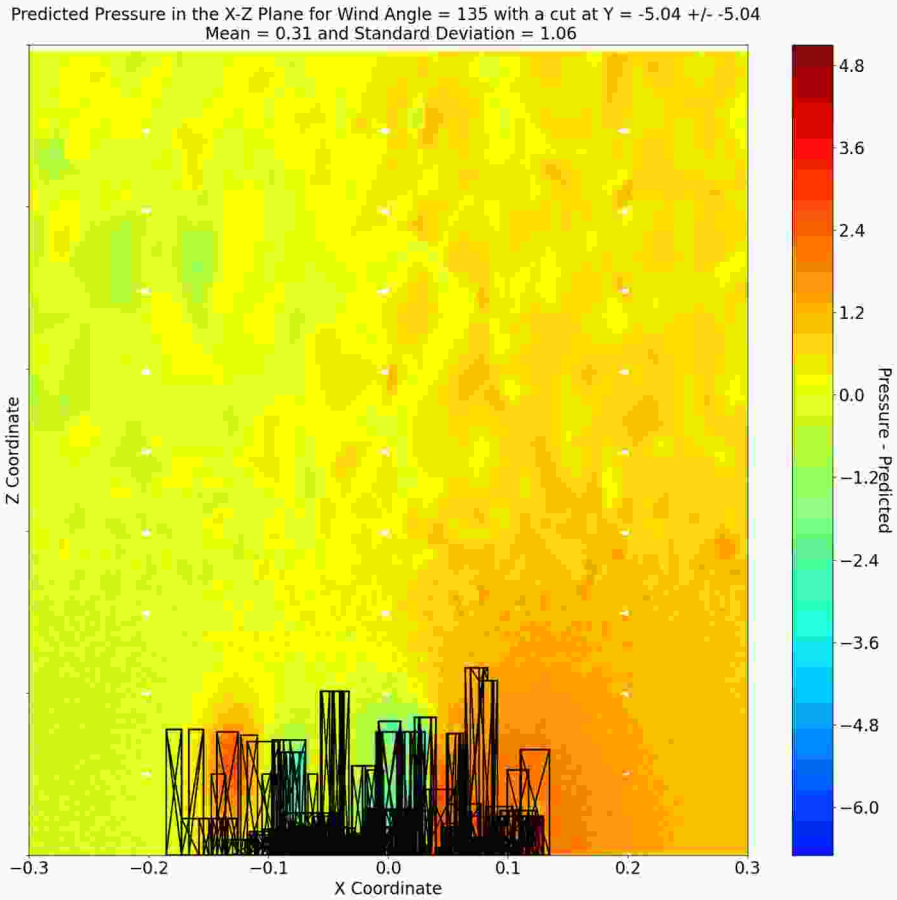




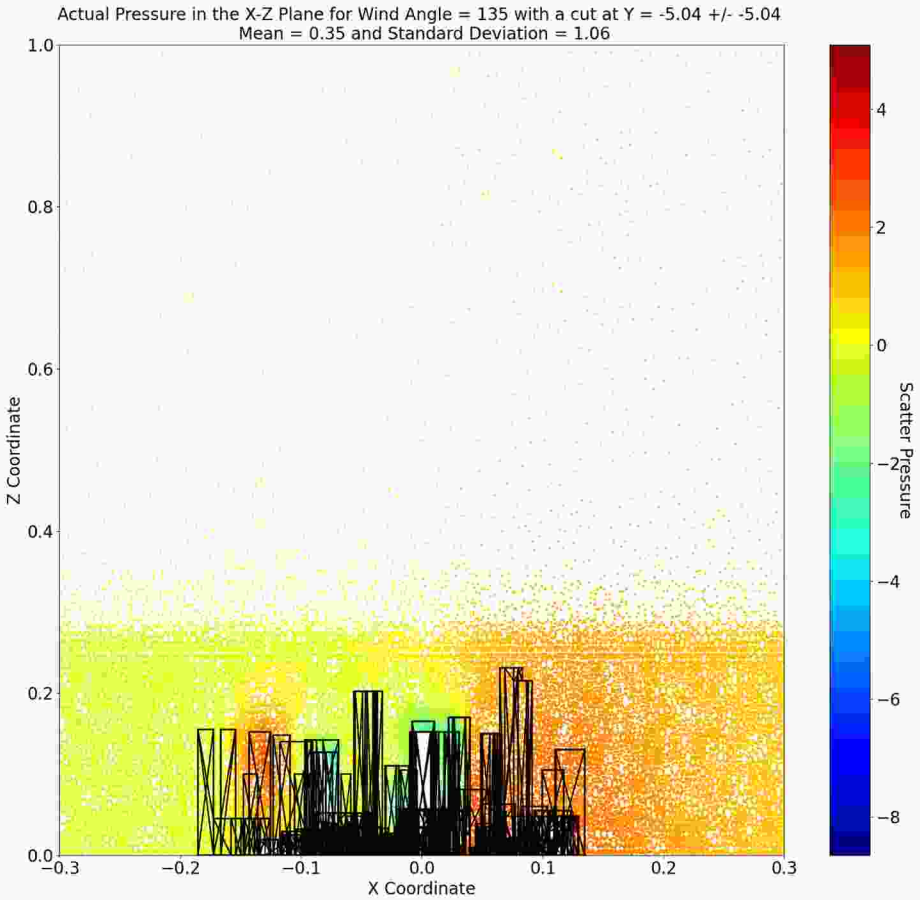

Velocity Z_Difference in the X-Y Plane for Wind Angle = 135 with a cut at Z = 0.01 +/- 0.01 with mean = 0.00 and std dev = 0.03
Y Coordinate
X Coordinate
Scatter Velocity Z_Difference
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.4
−0.4

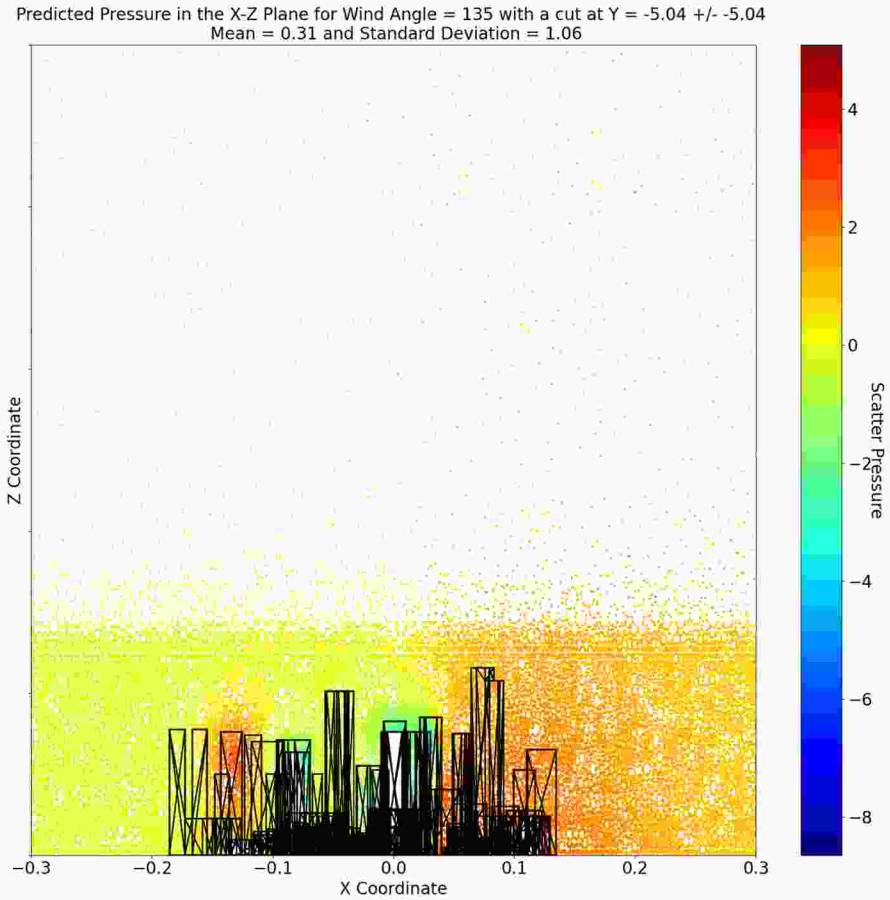
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

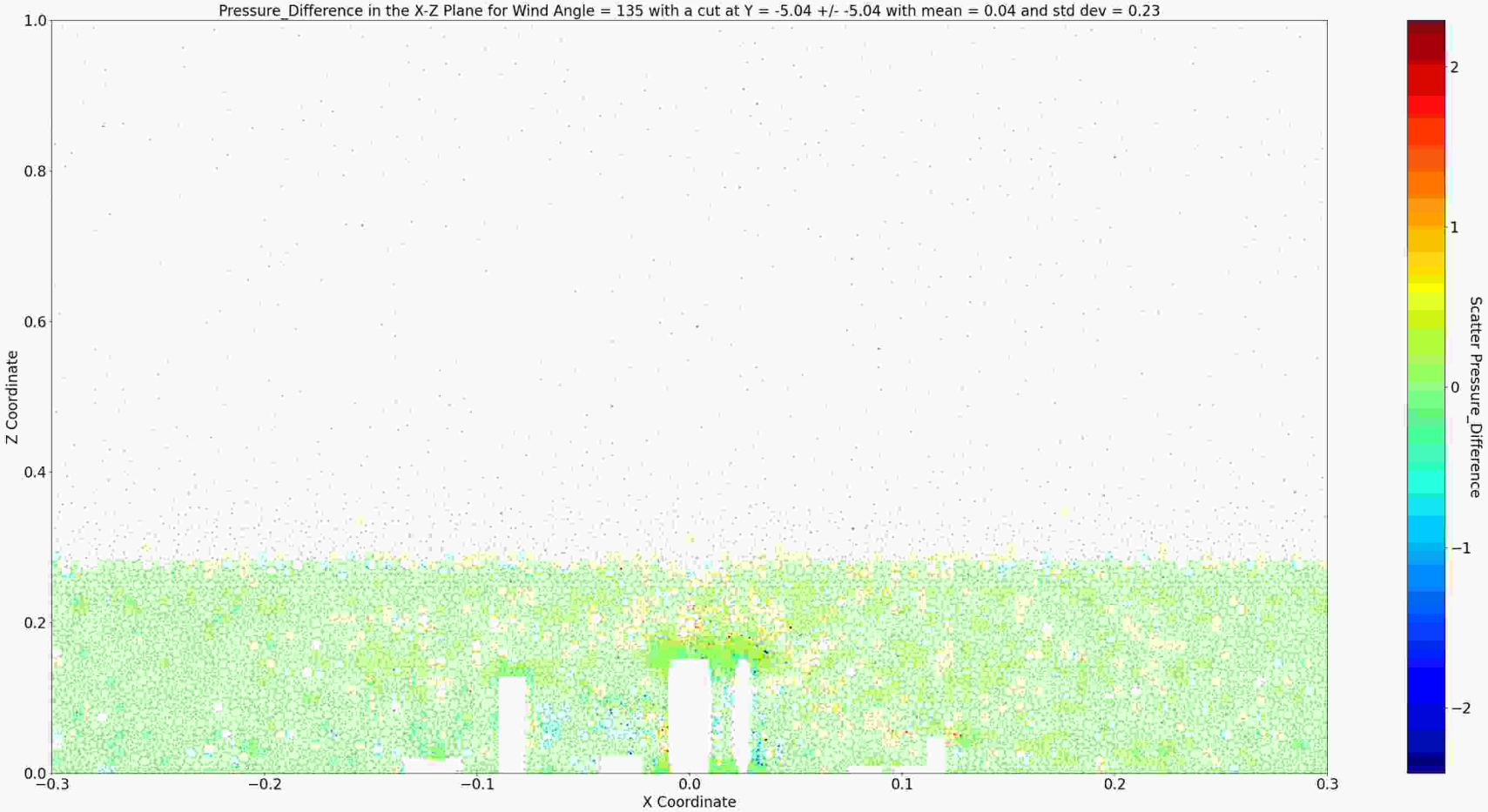




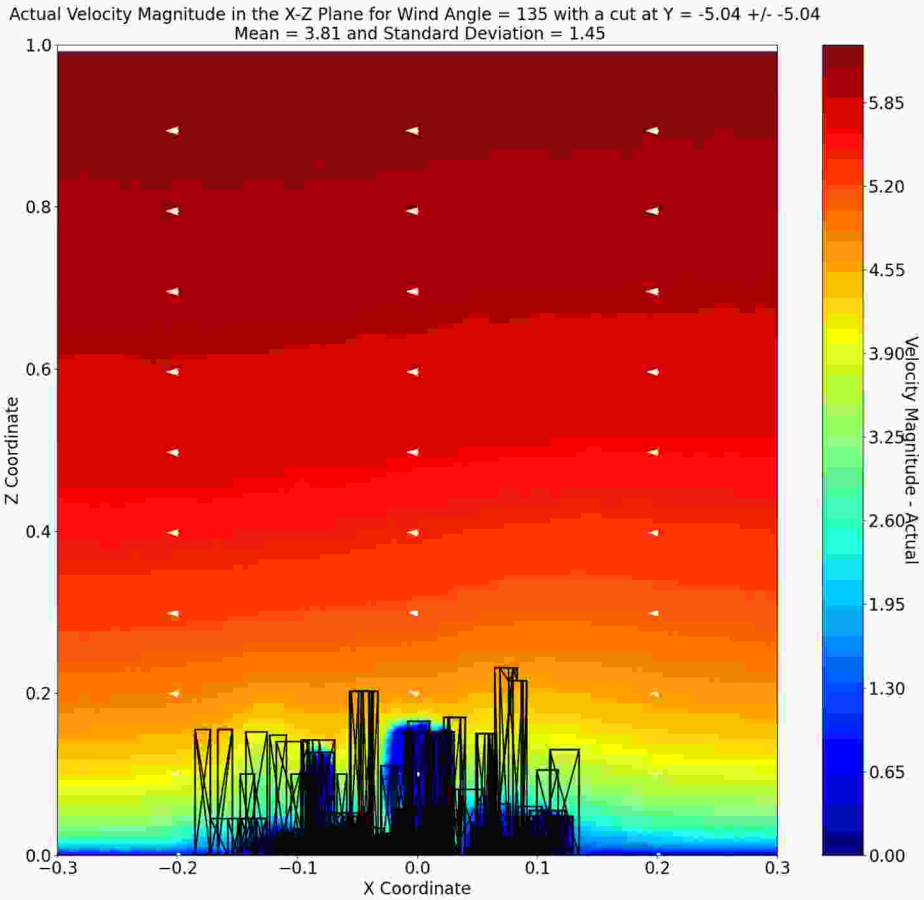
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

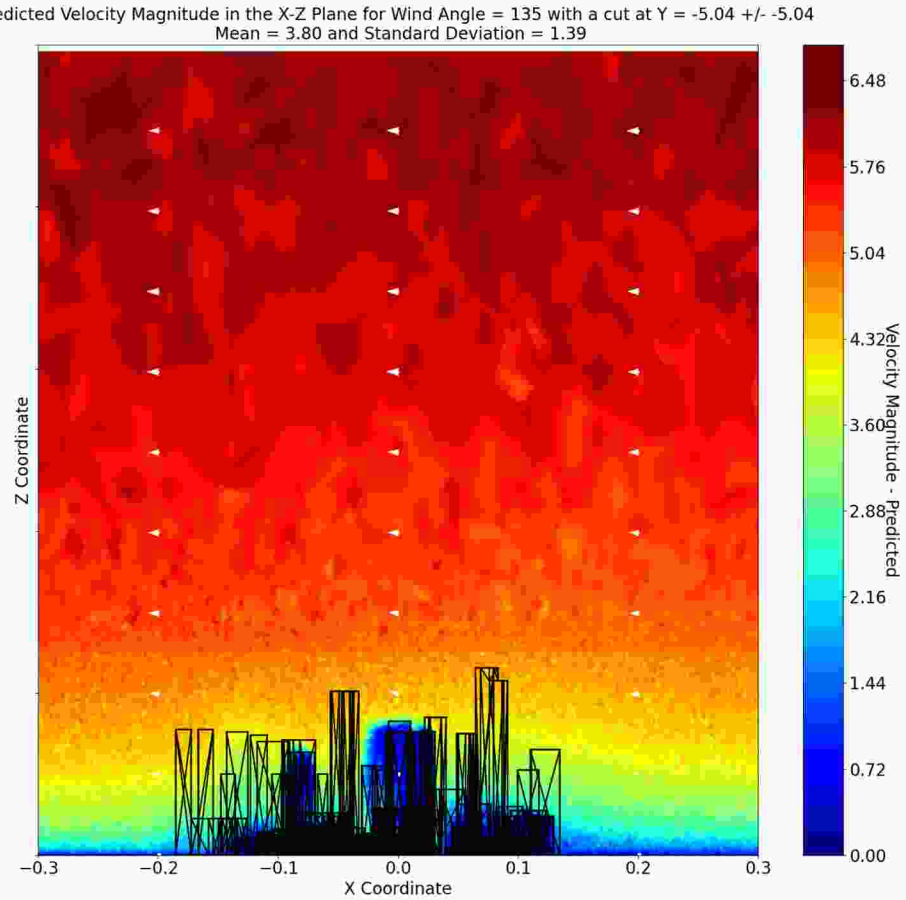




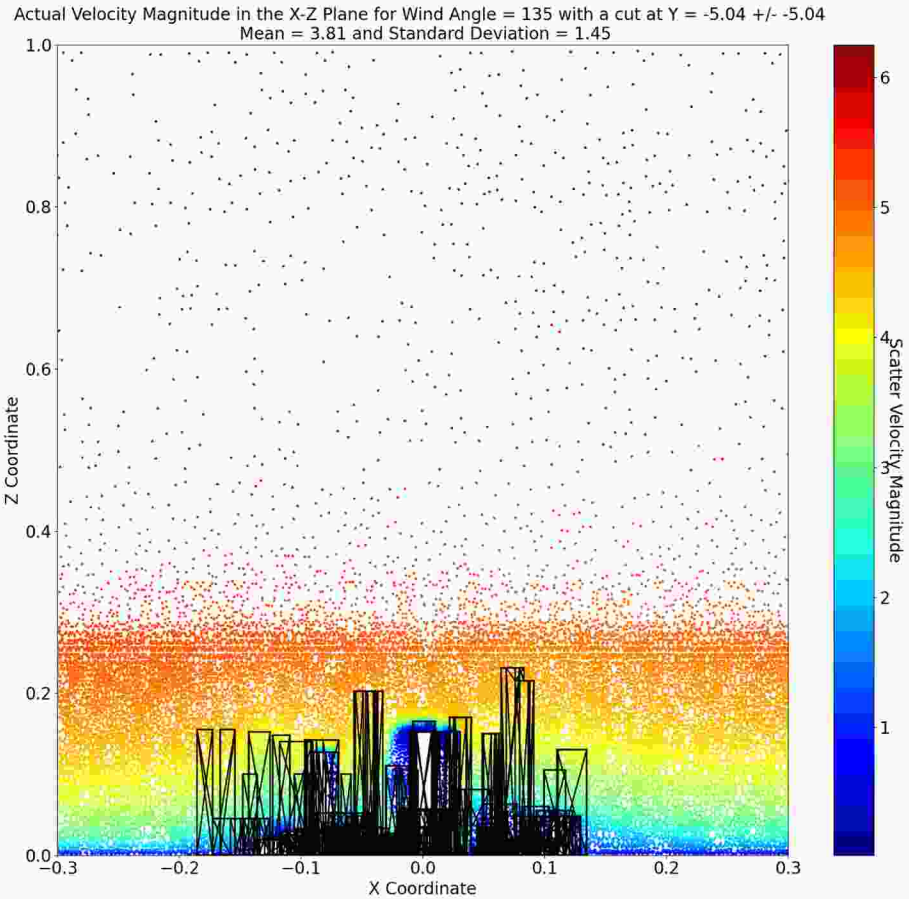

Pressure_Difference in the X-Z Plane for Wind Angle = 135 with a cut at Y = -5.04 +/- -5.04 with mean = 0.04 and std dev = 0.23
Z Coordinate
X Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
2
1
0
−1
−2

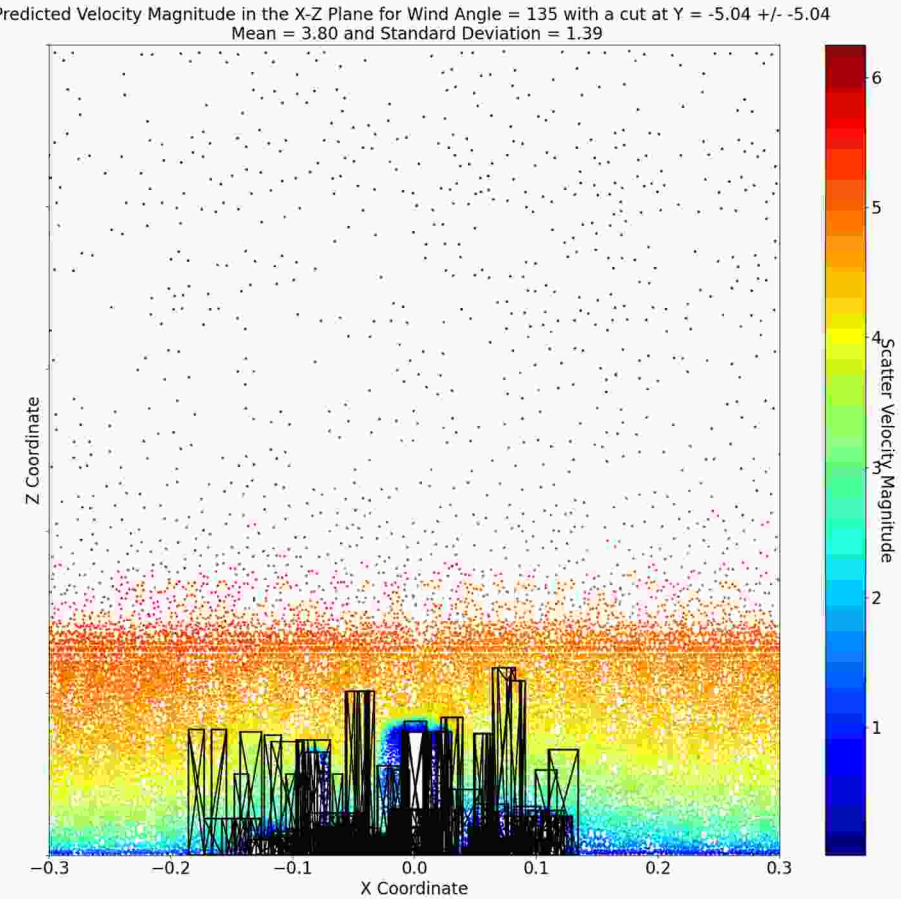
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

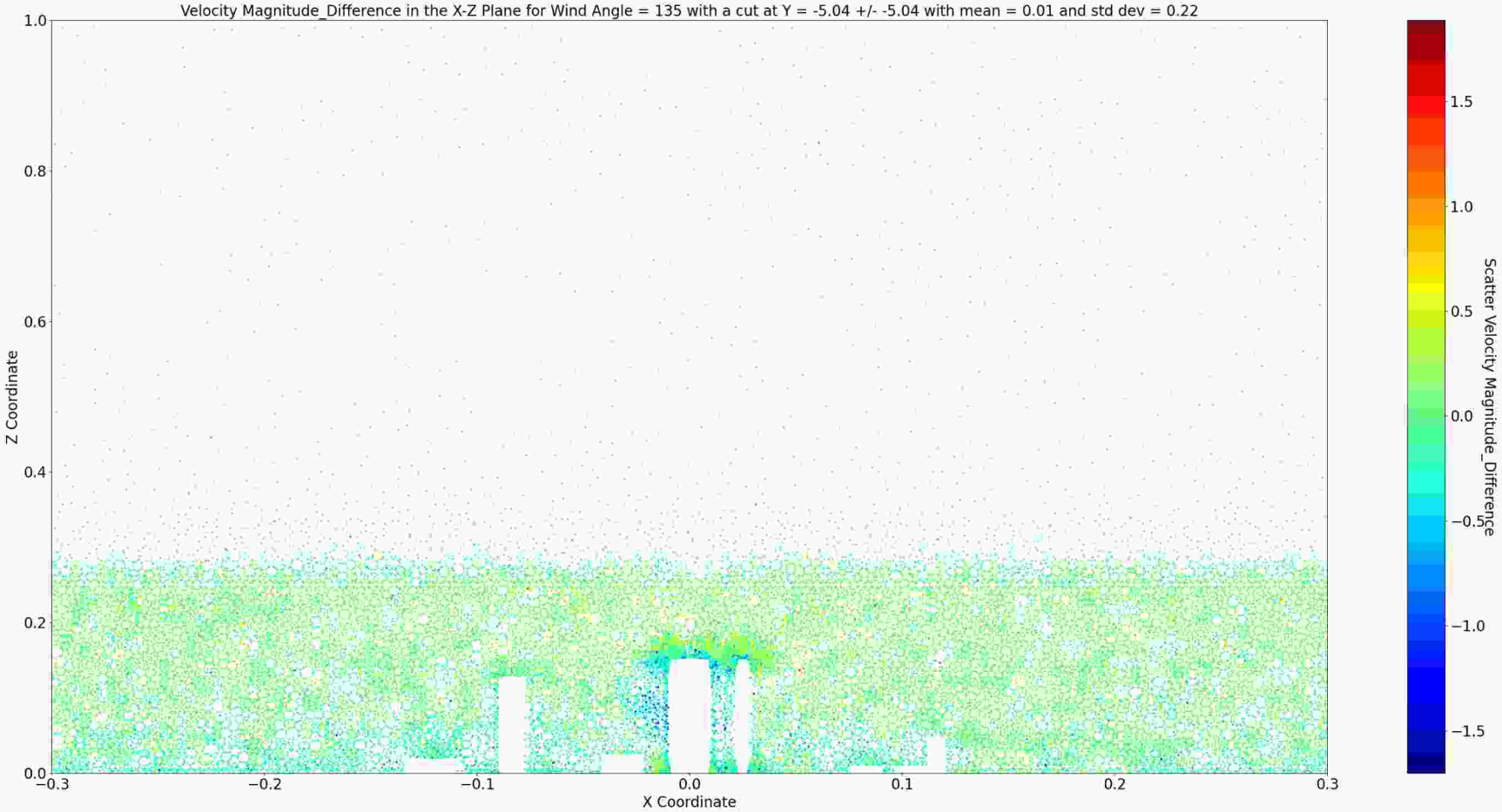




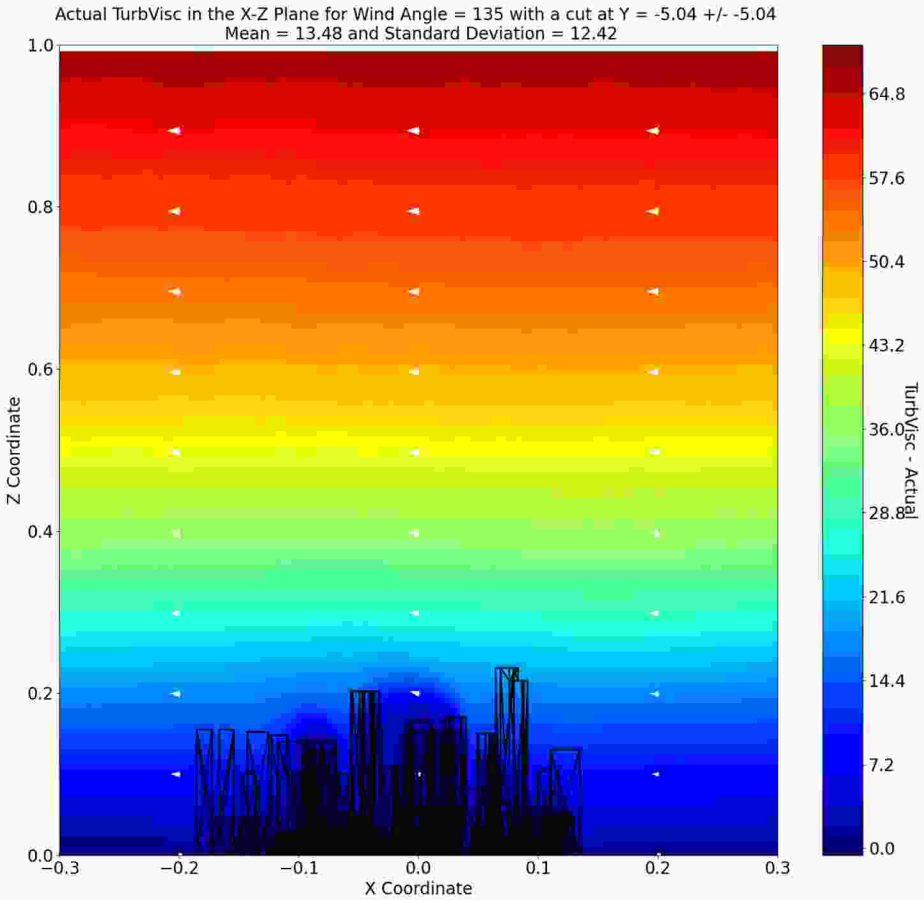
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

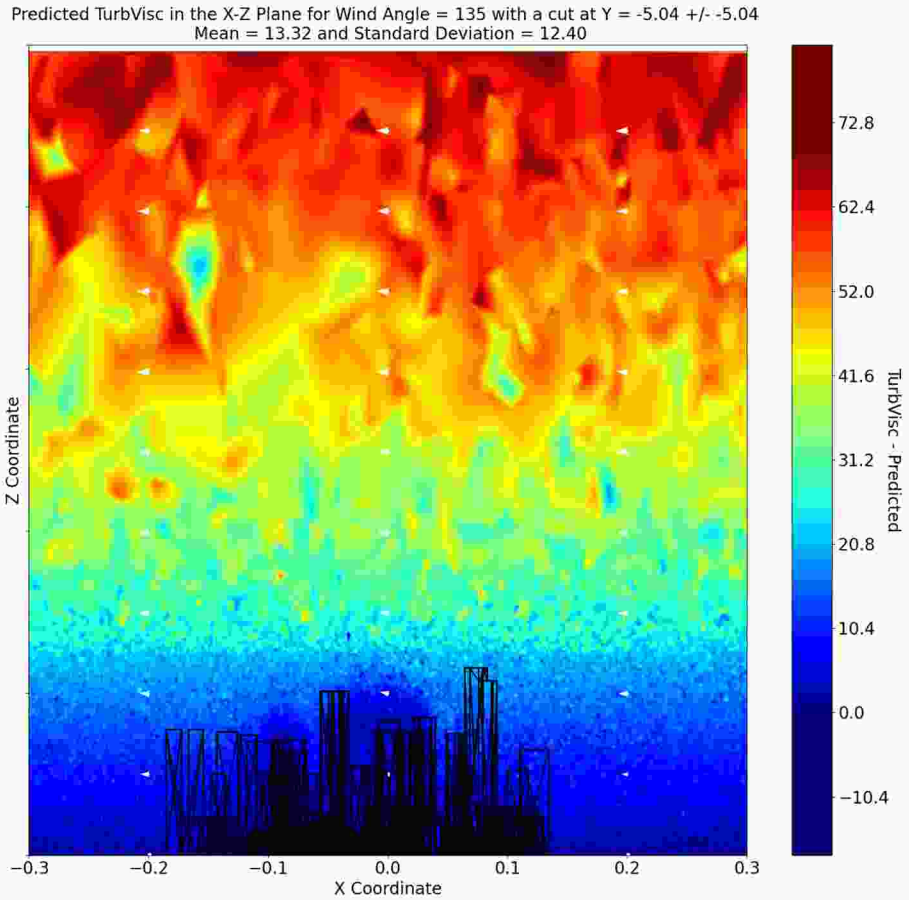




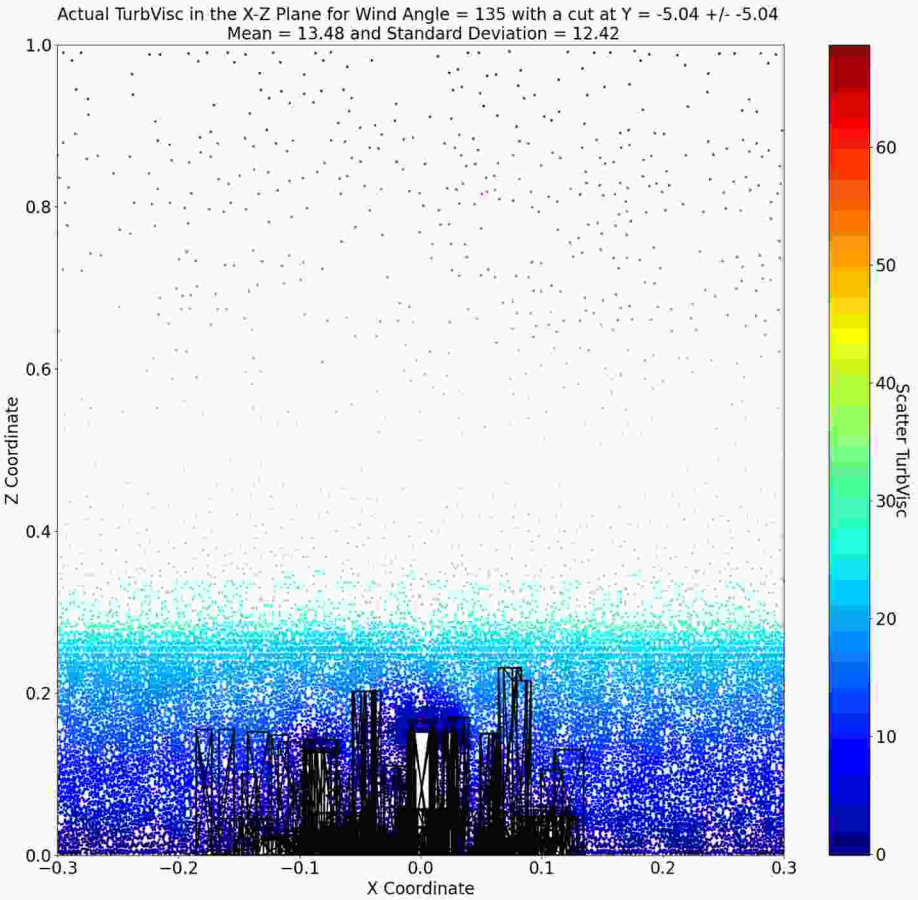

Velocity Magnitude_Difference in the X-Z Plane for Wind Angle = 135 with a cut at Y = -5.04 +/- -5.04 with mean = 0.01 and std dev = 0.22
Z Coordinate
X Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5

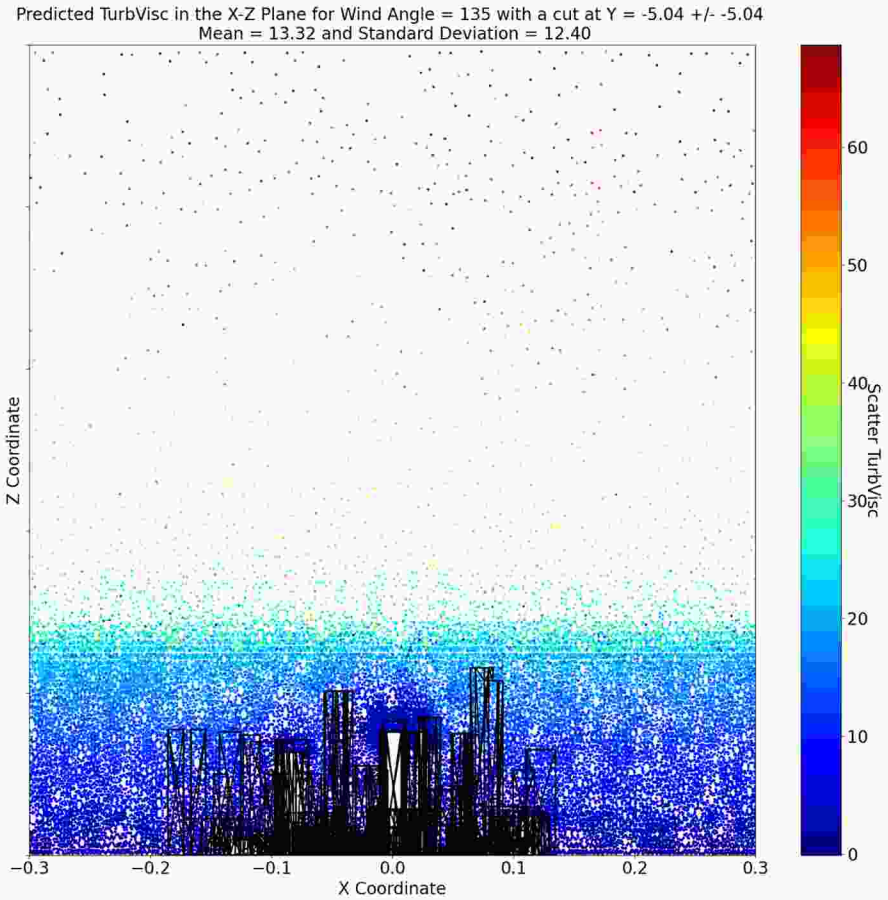
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

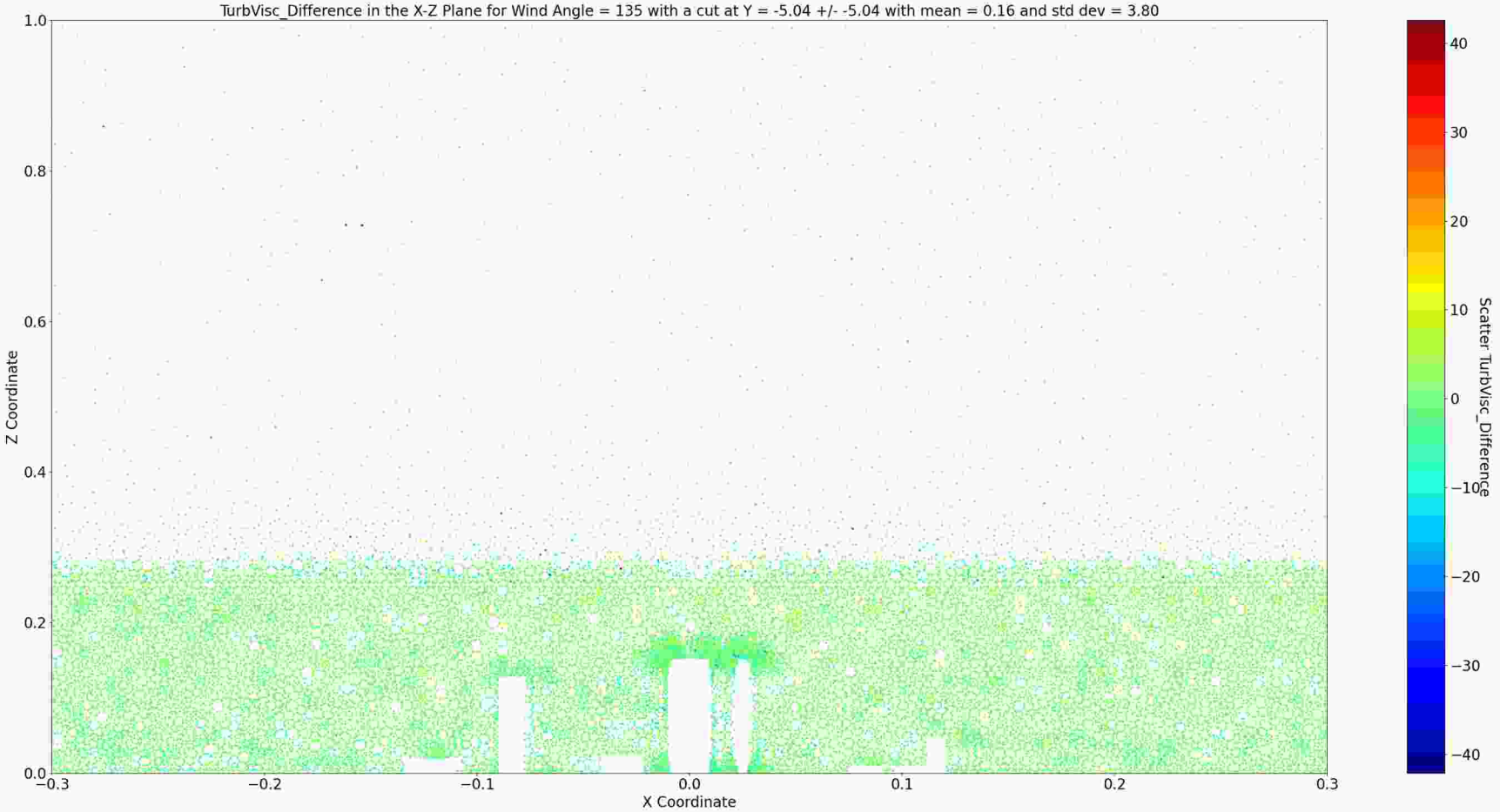




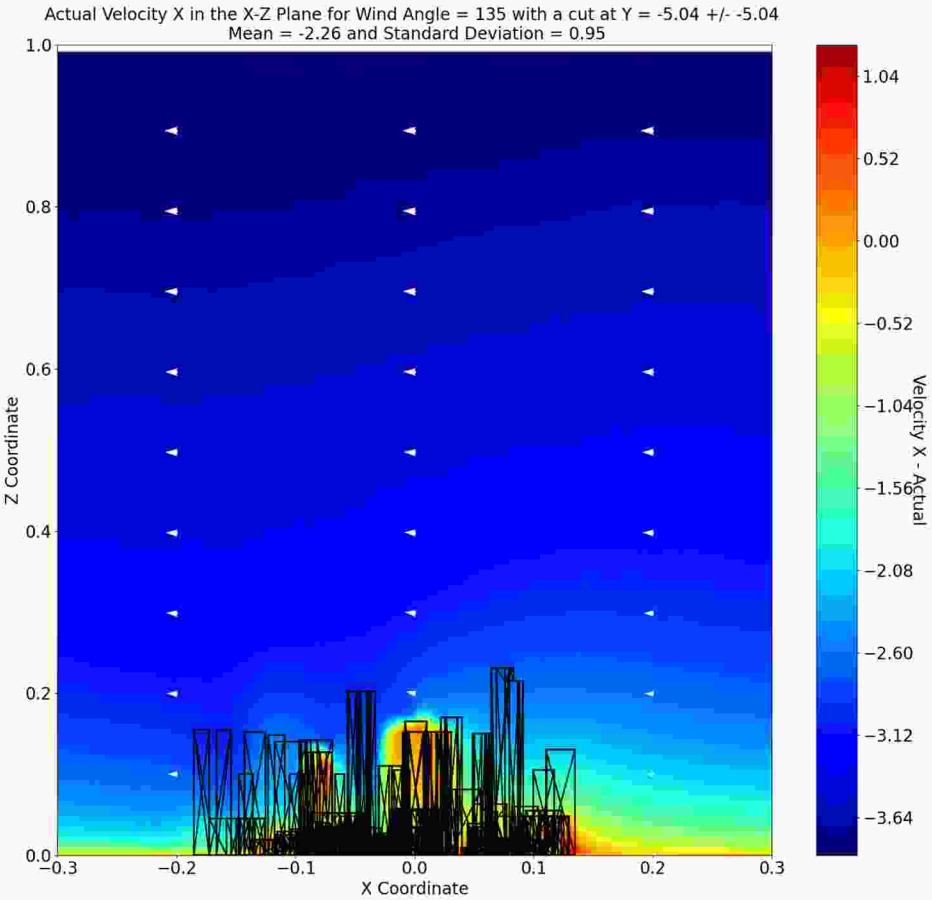
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

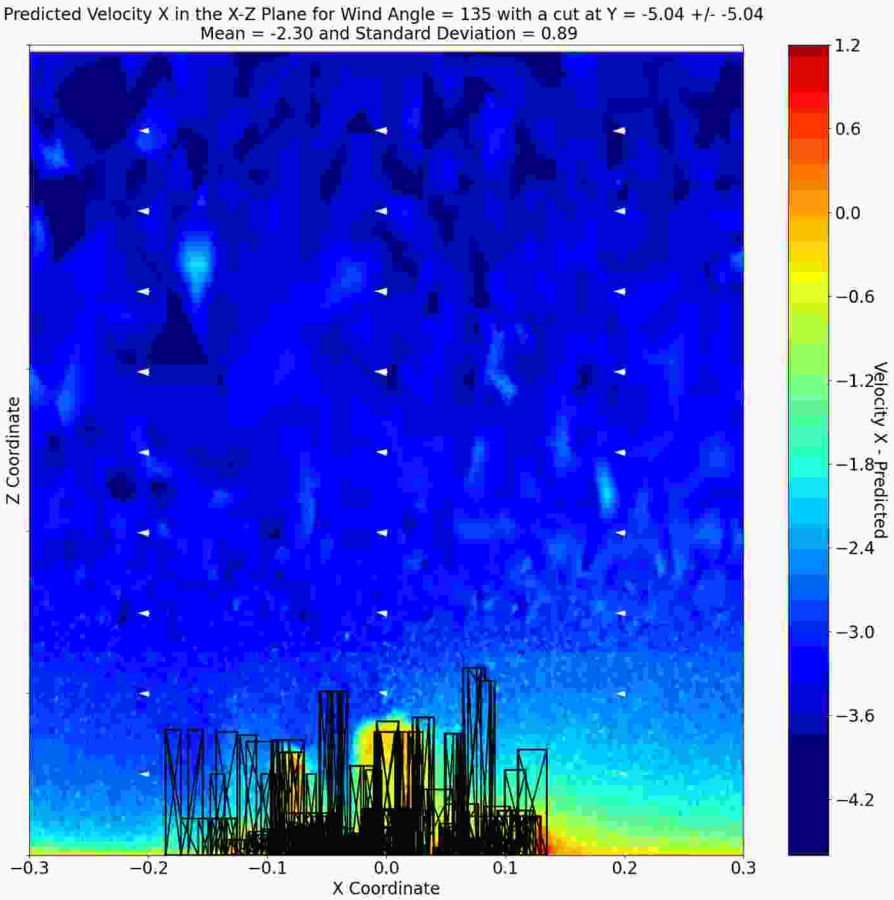




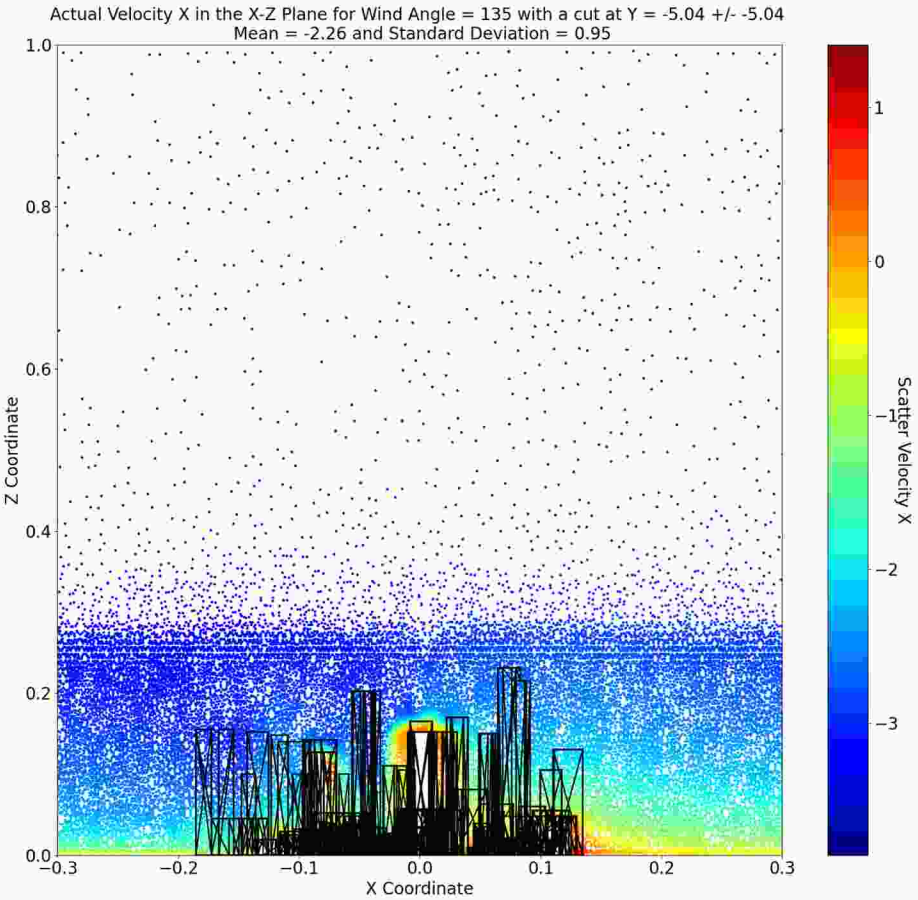

TurbVisc_Difference in the X-Z Plane for Wind Angle = 135 with a cut at Y = -5.04 +/- -5.04 with mean = 0.16 and std dev = 3.80
Z Coordinate
X Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
40
30
20
10
0
−10
−20
−30
−40

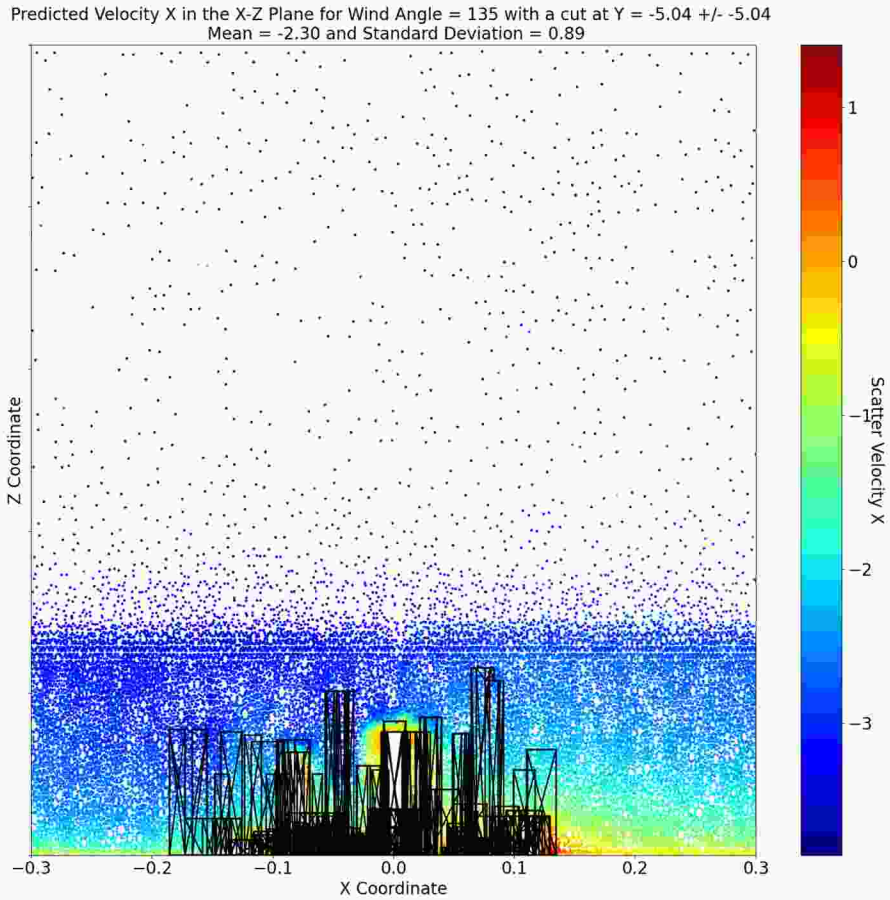
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

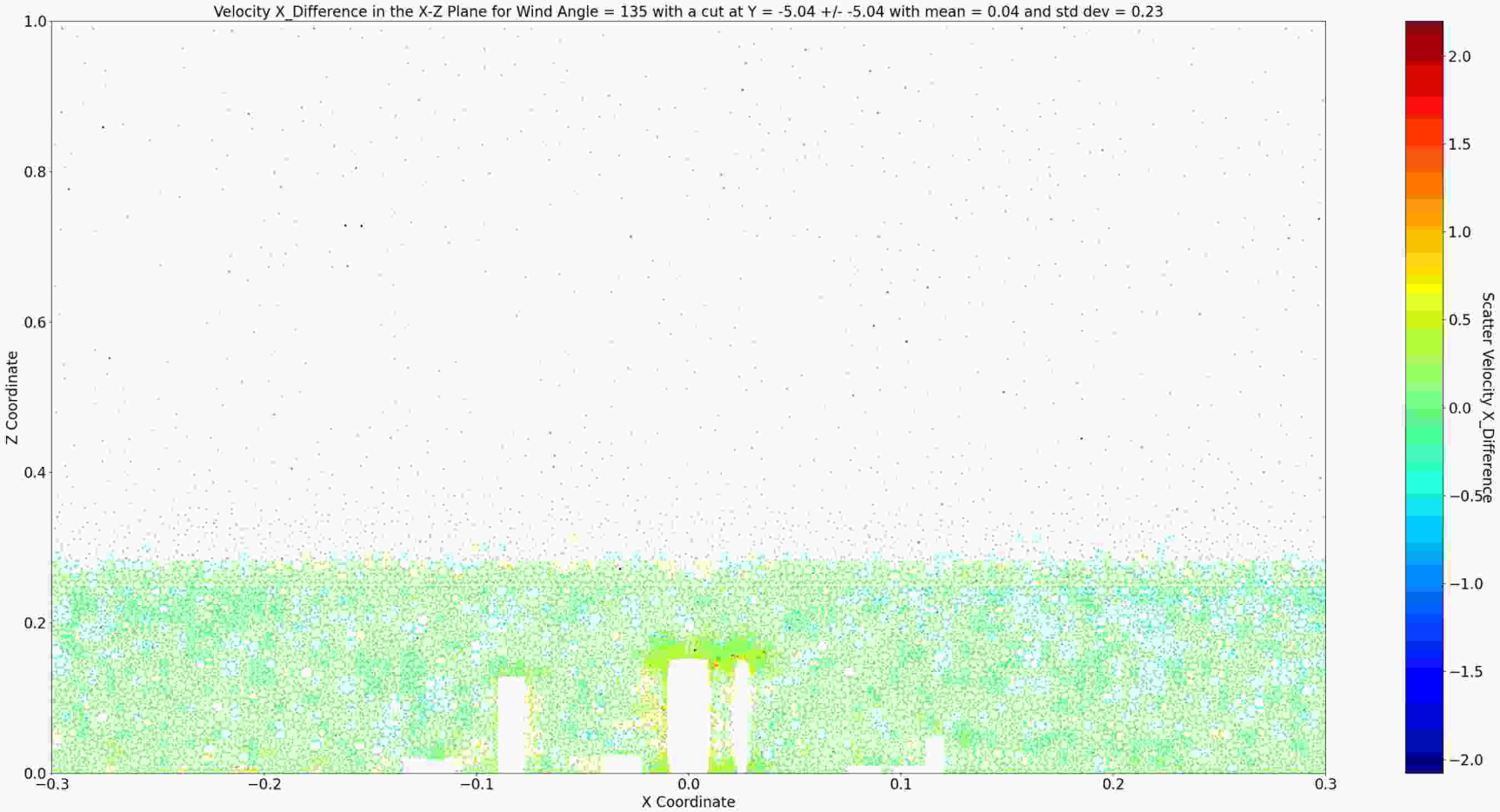




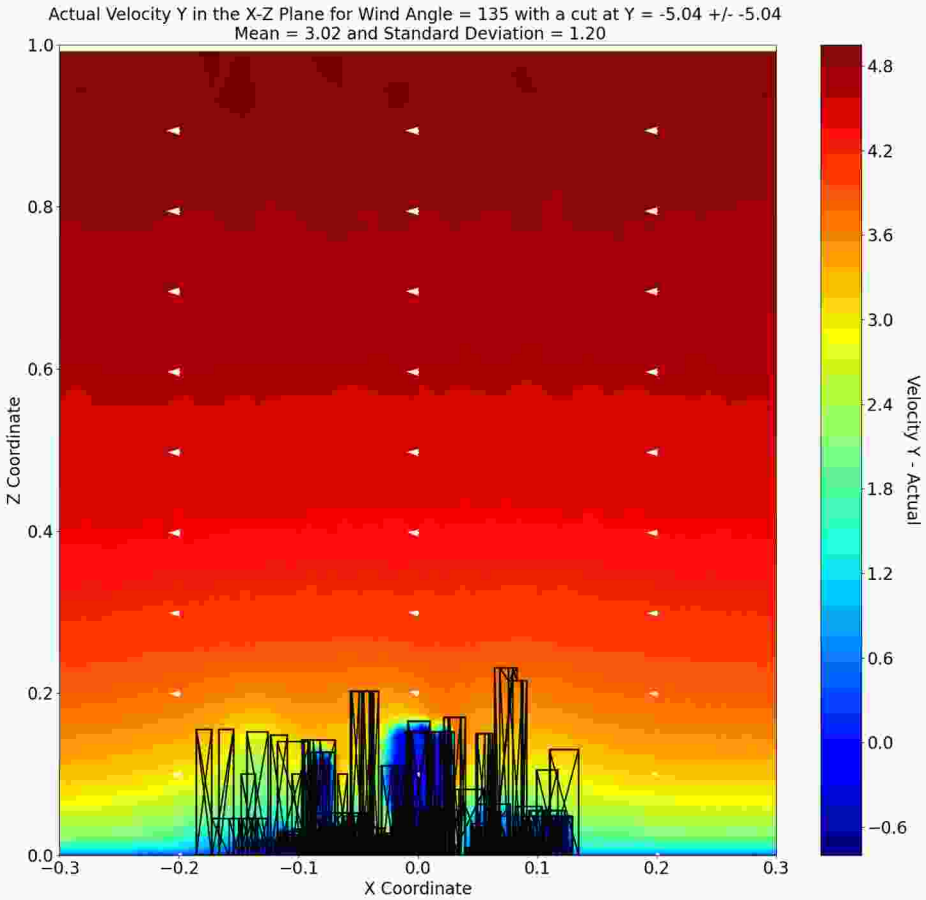
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

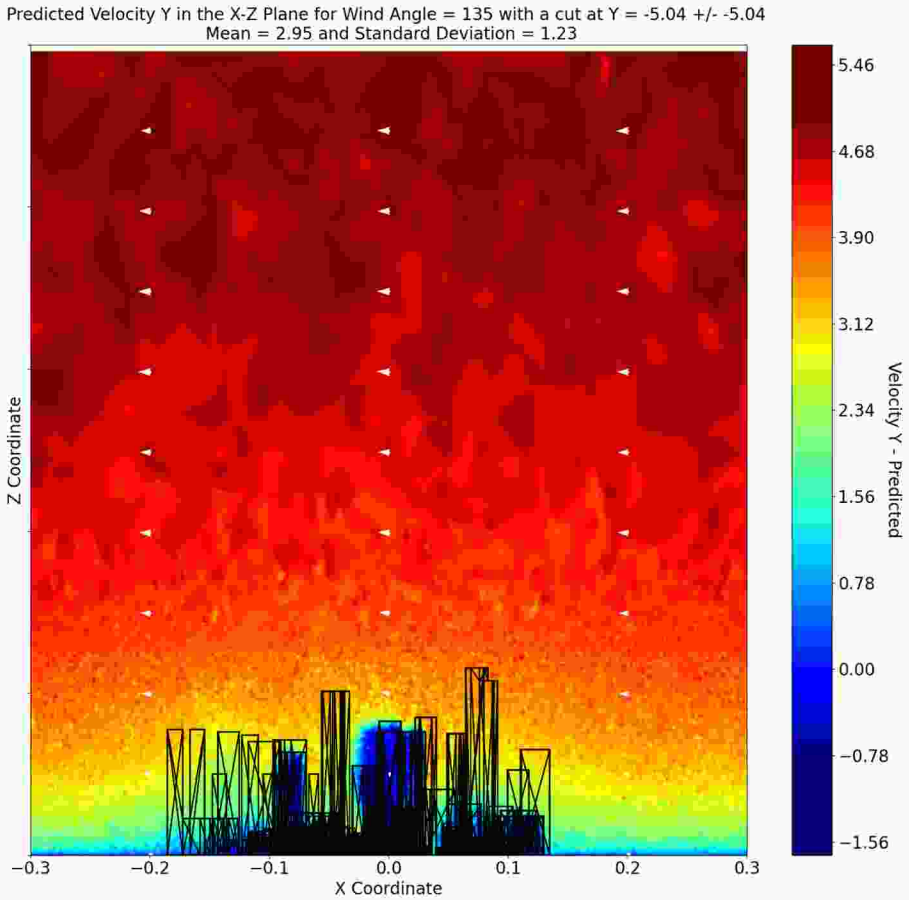




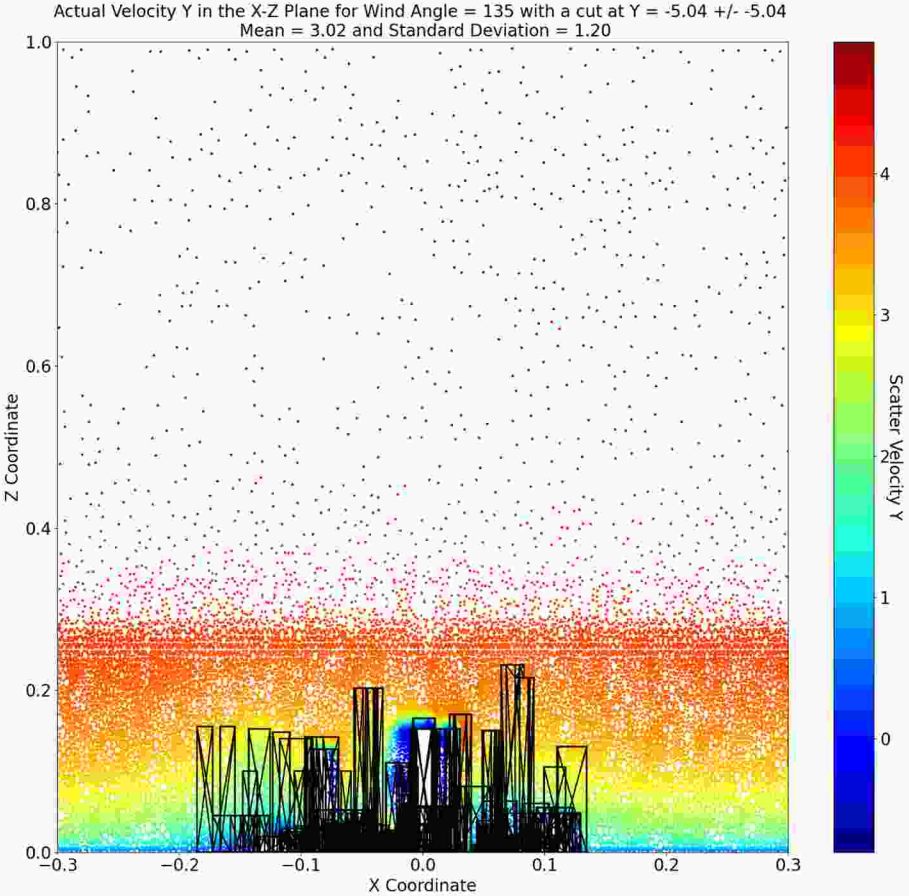

Velocity X_Difference in the X-Z Plane for Wind Angle = 135 with a cut at Y = -5.04 +/- -5.04 with mean = 0.04 and std dev = 0.23
Z Coordinate
X Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
−2.0

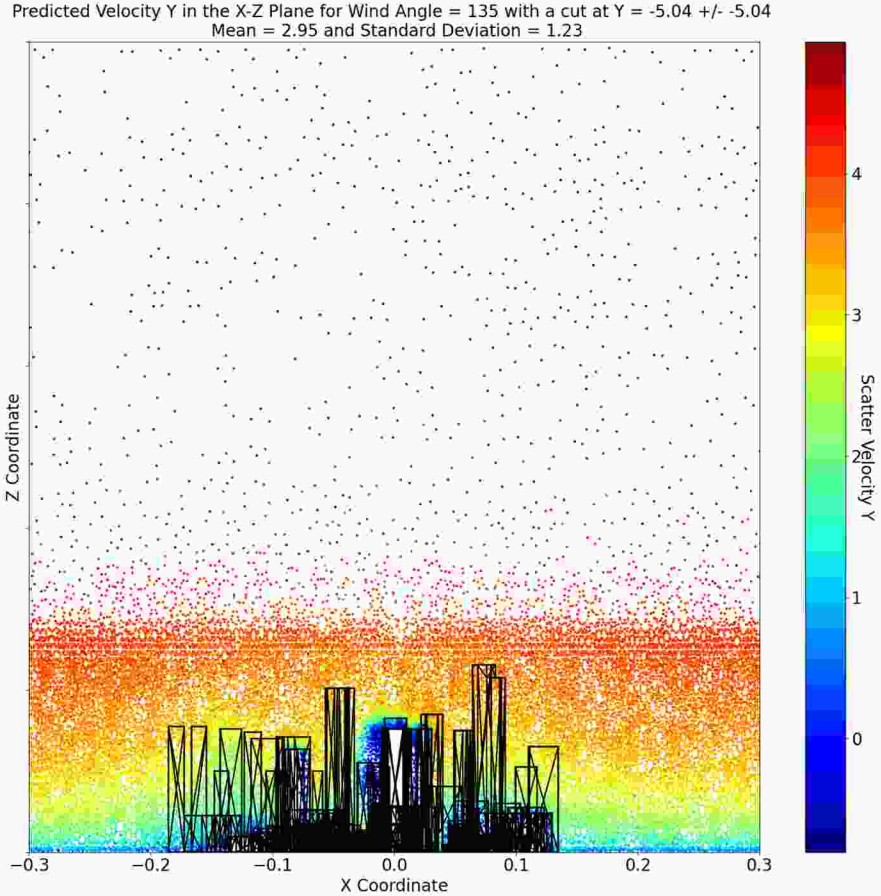
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

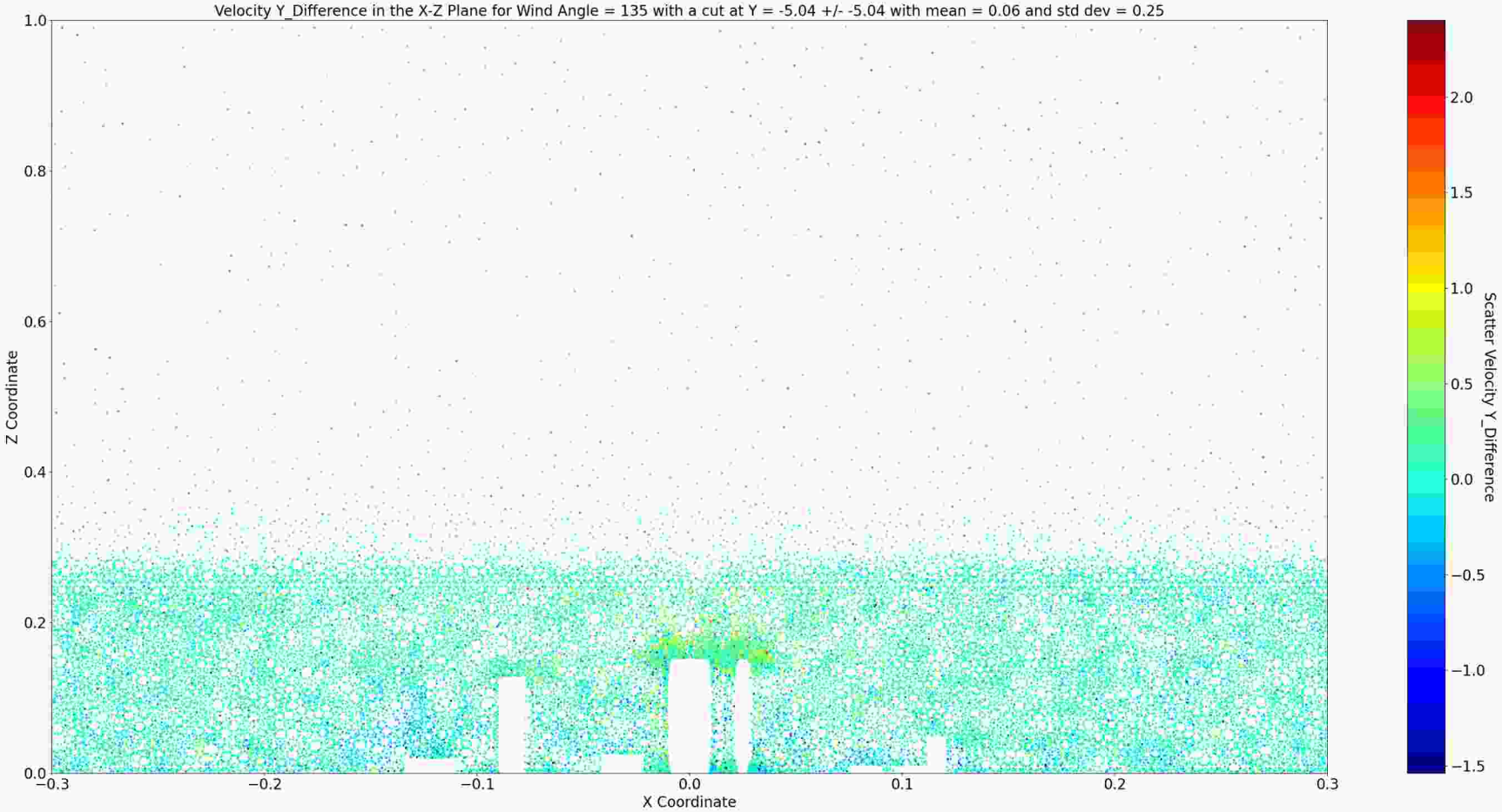




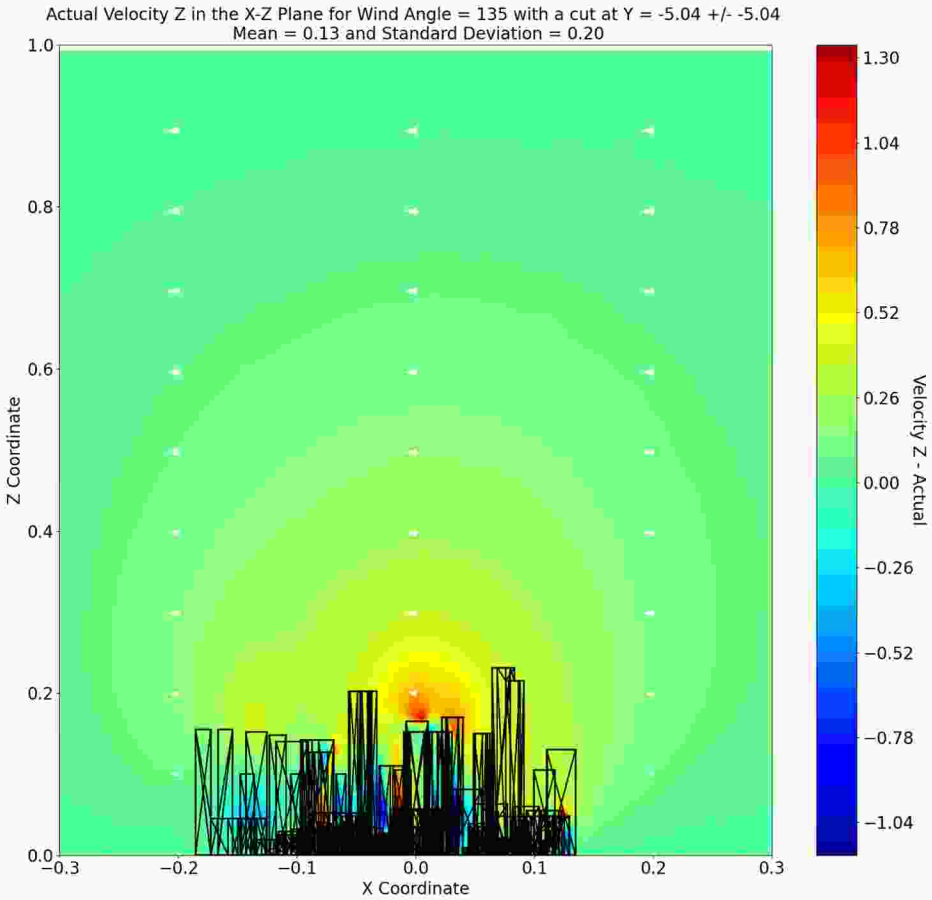
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

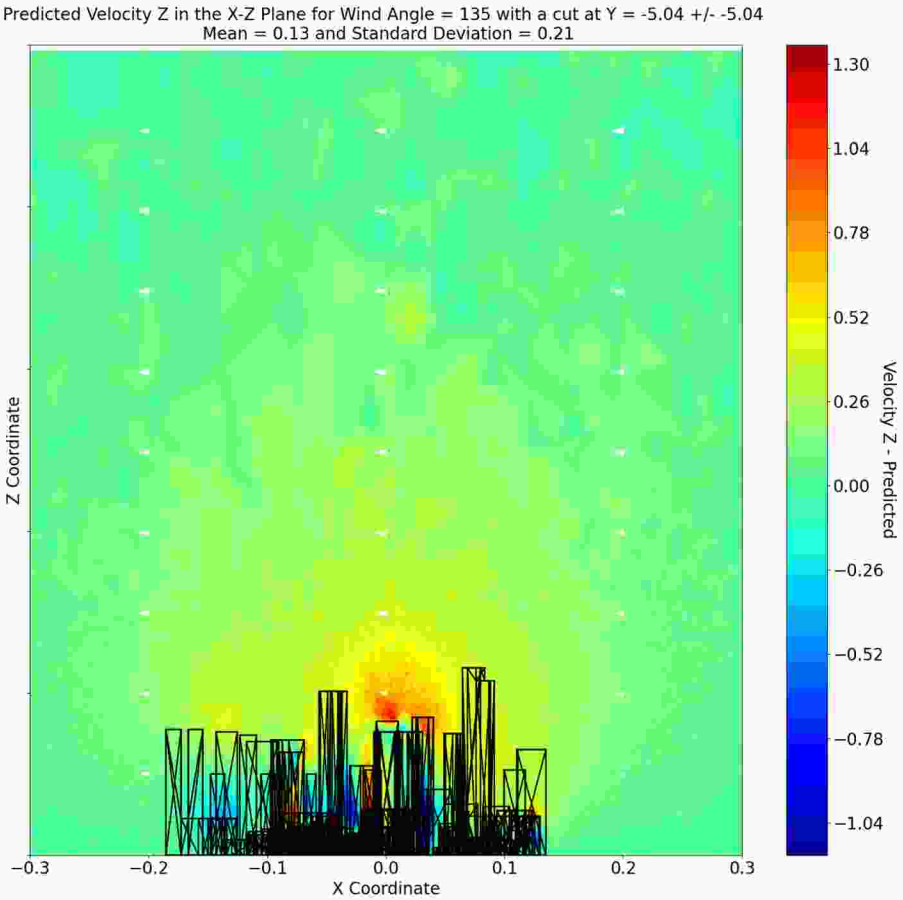




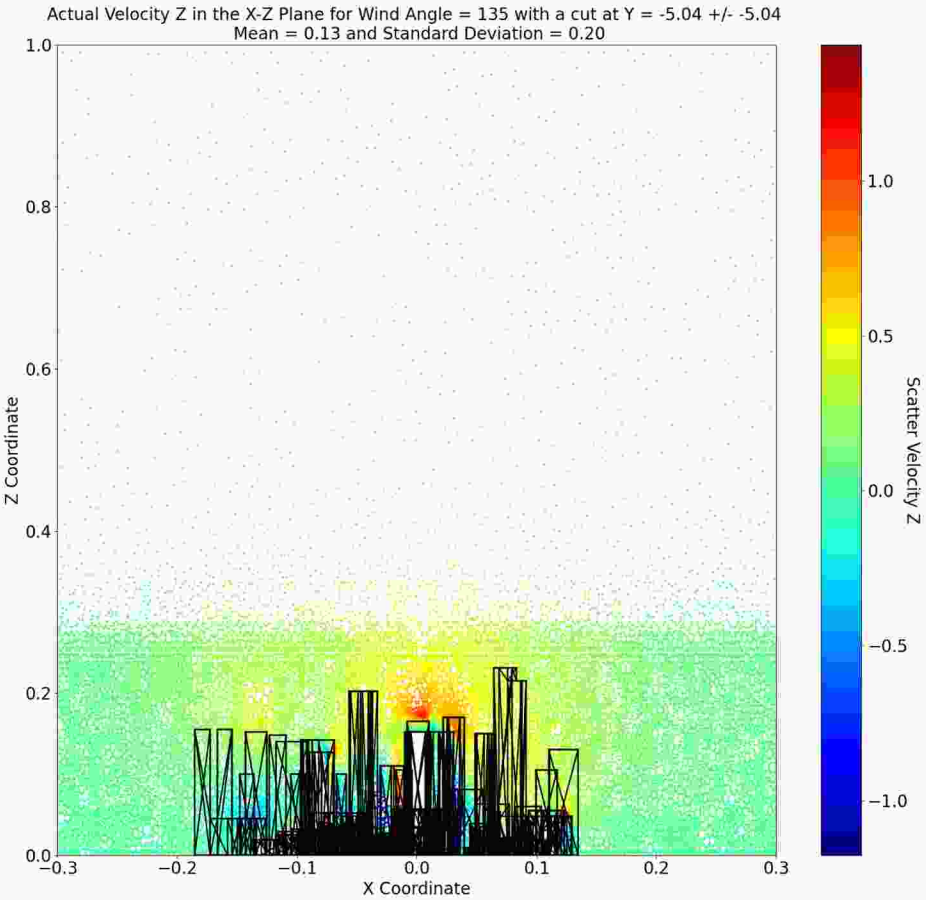

Velocity Y_Difference in the X-Z Plane for Wind Angle = 135 with a cut at Y = -5.04 +/- -5.04 with mean = 0.06 and std dev = 0.25
Z Coordinate
X Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5

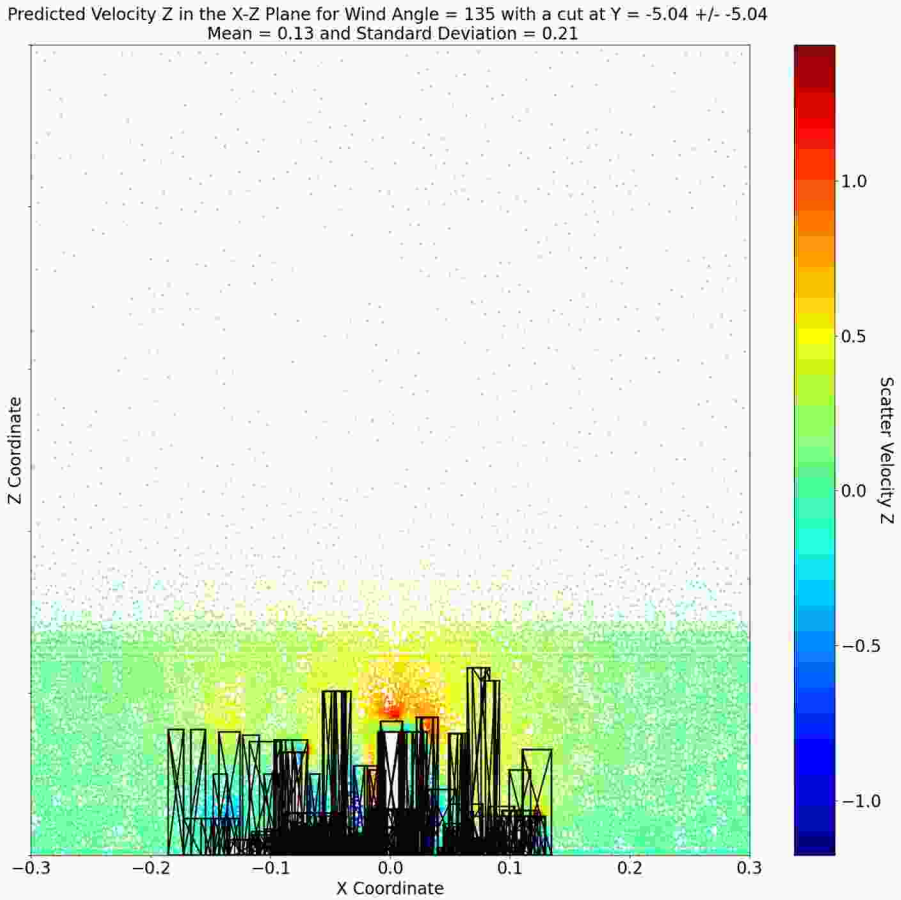
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

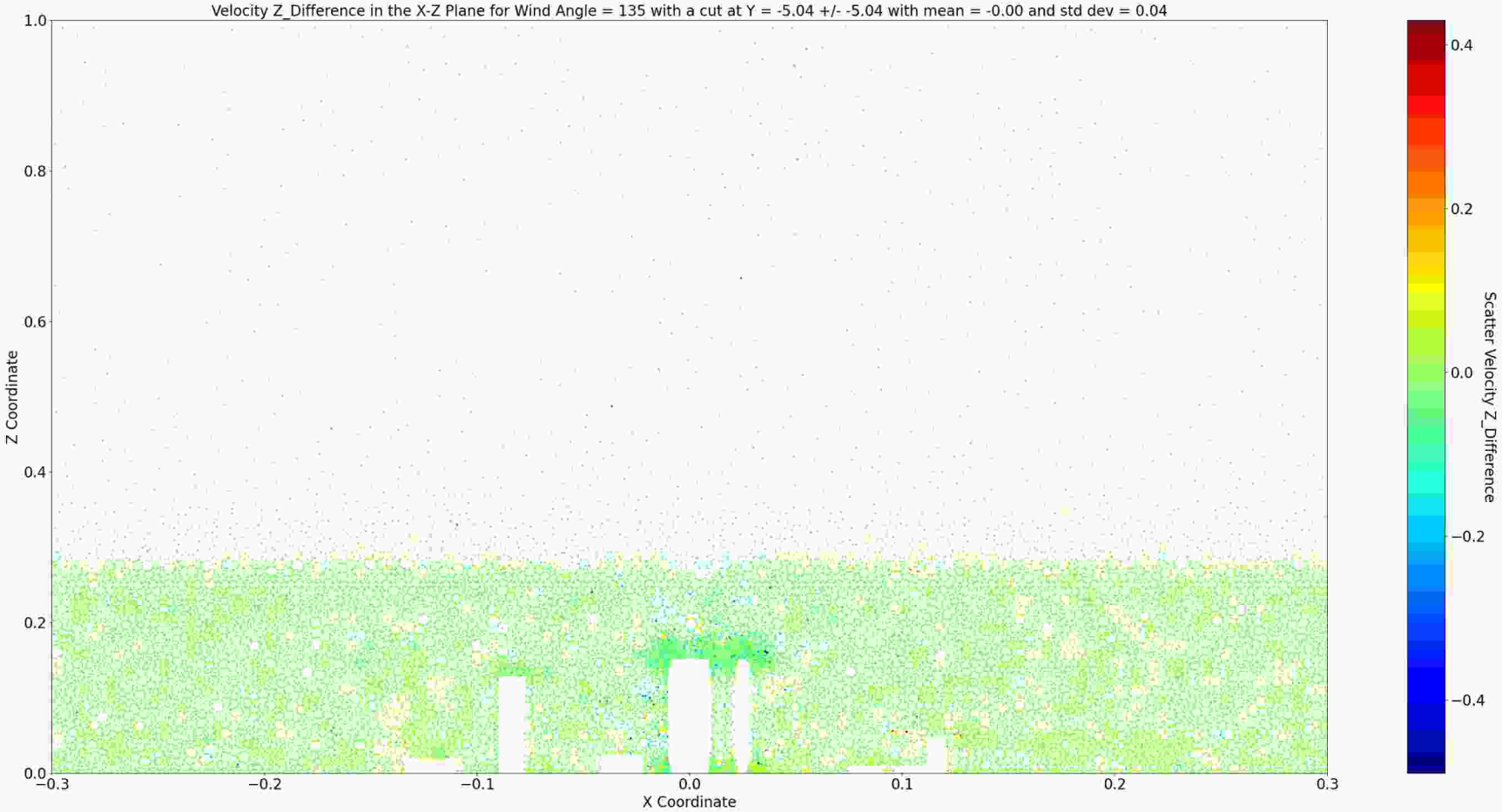




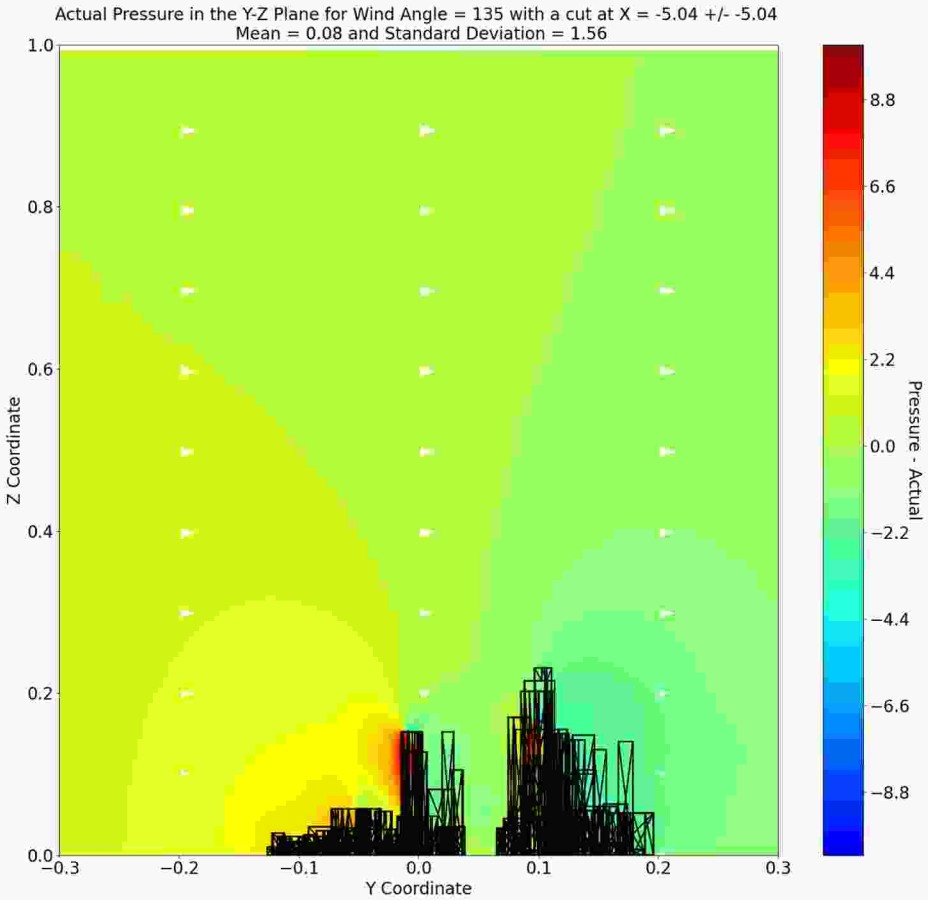
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the X-Z Plane with a cut at Y = -5.04 +/- -5.04

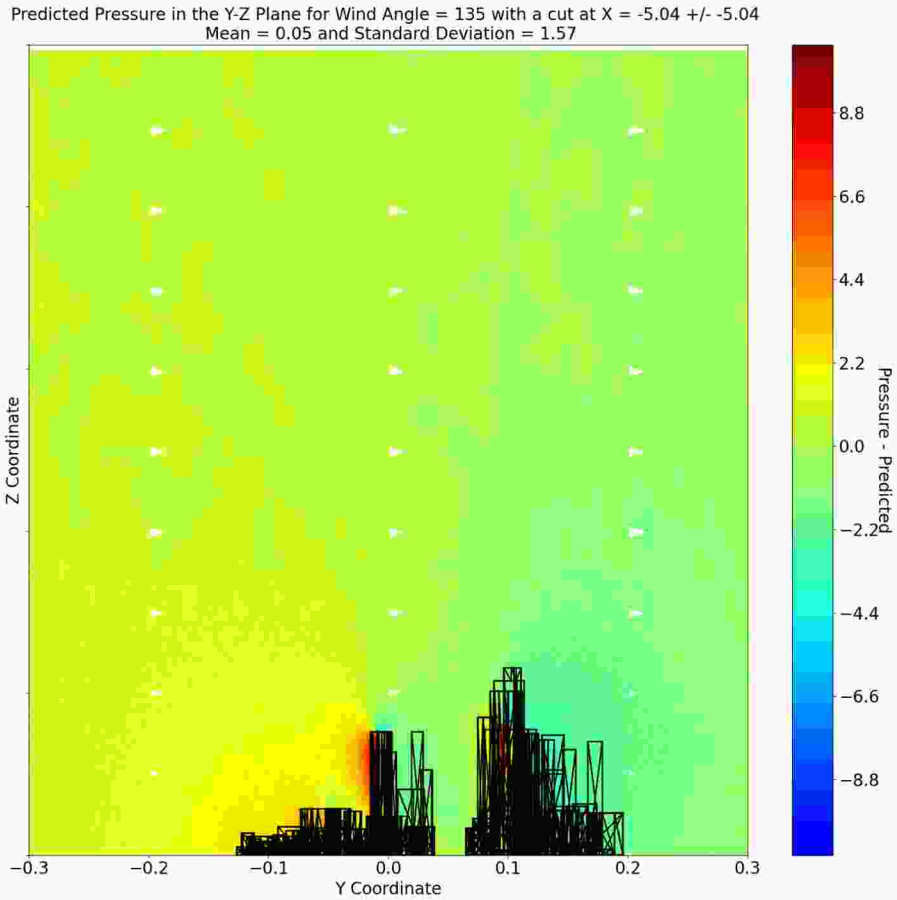




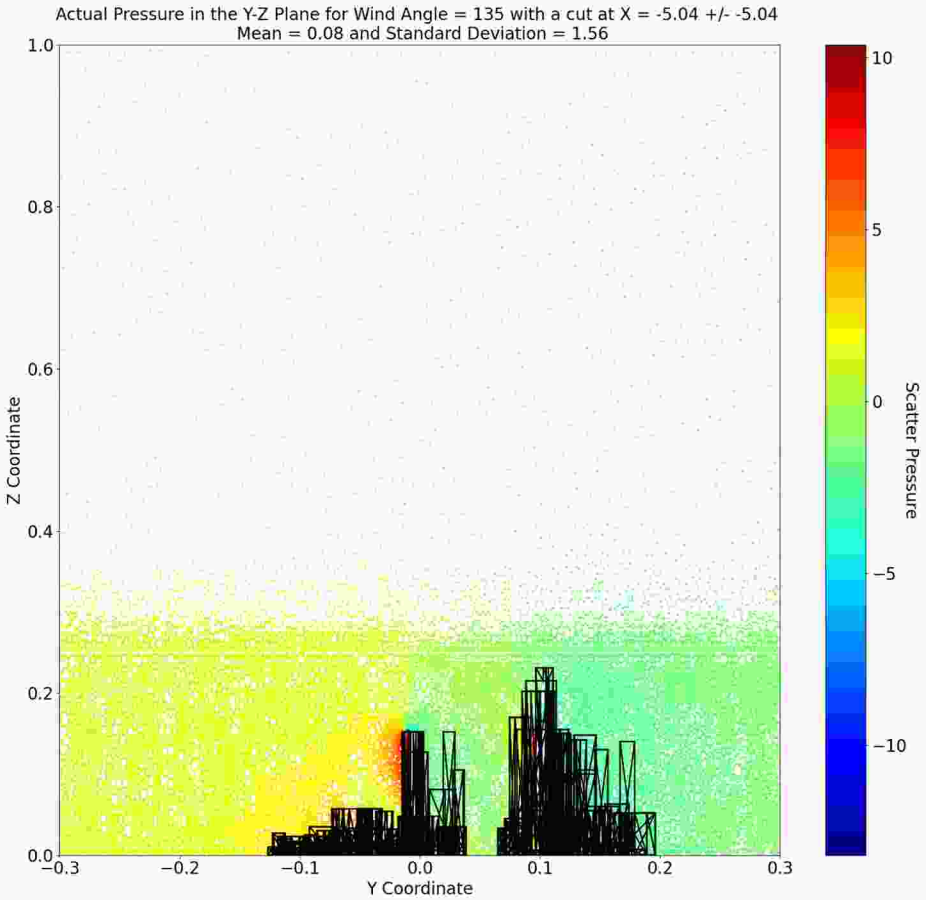

Velocity Z_Difference in the X-Z Plane for Wind Angle = 135 with a cut at Y = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.04
Z Coordinate
X Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.4
0.2
0.0
−0.2
−0.4

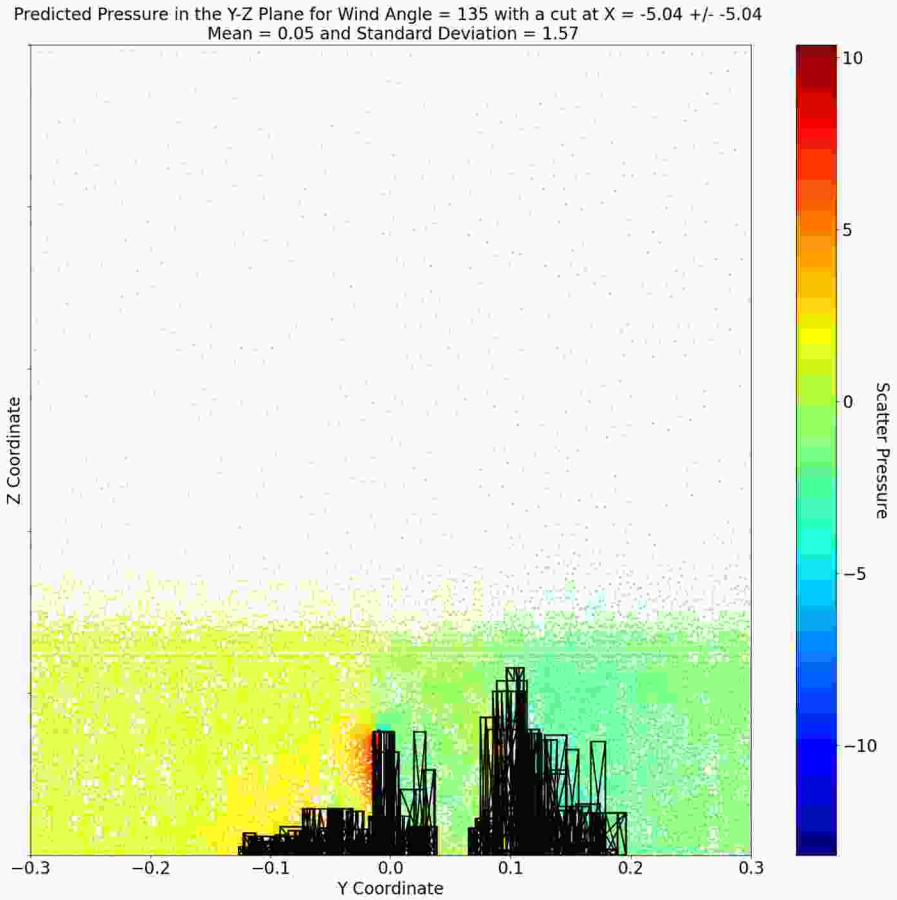
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

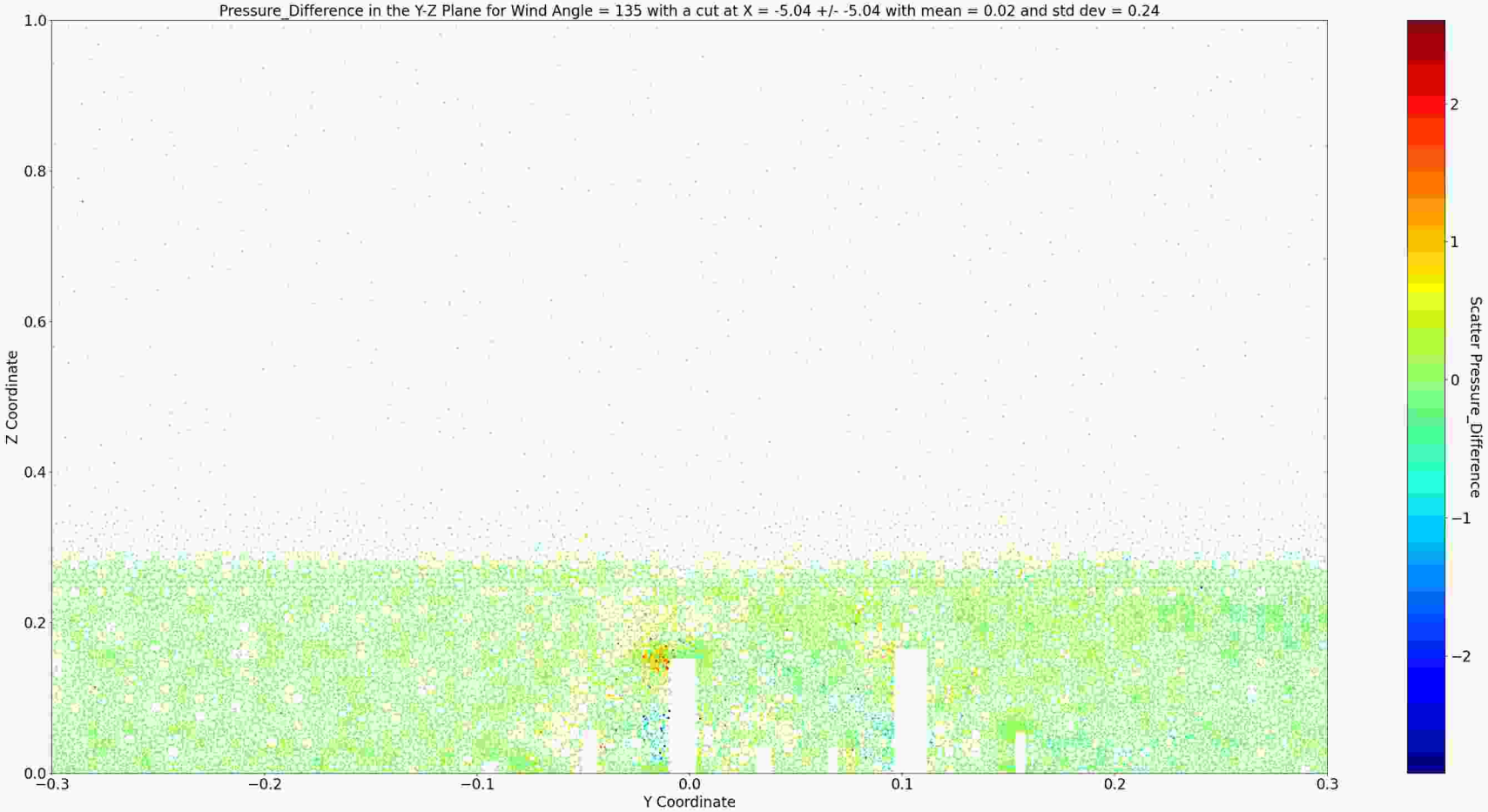




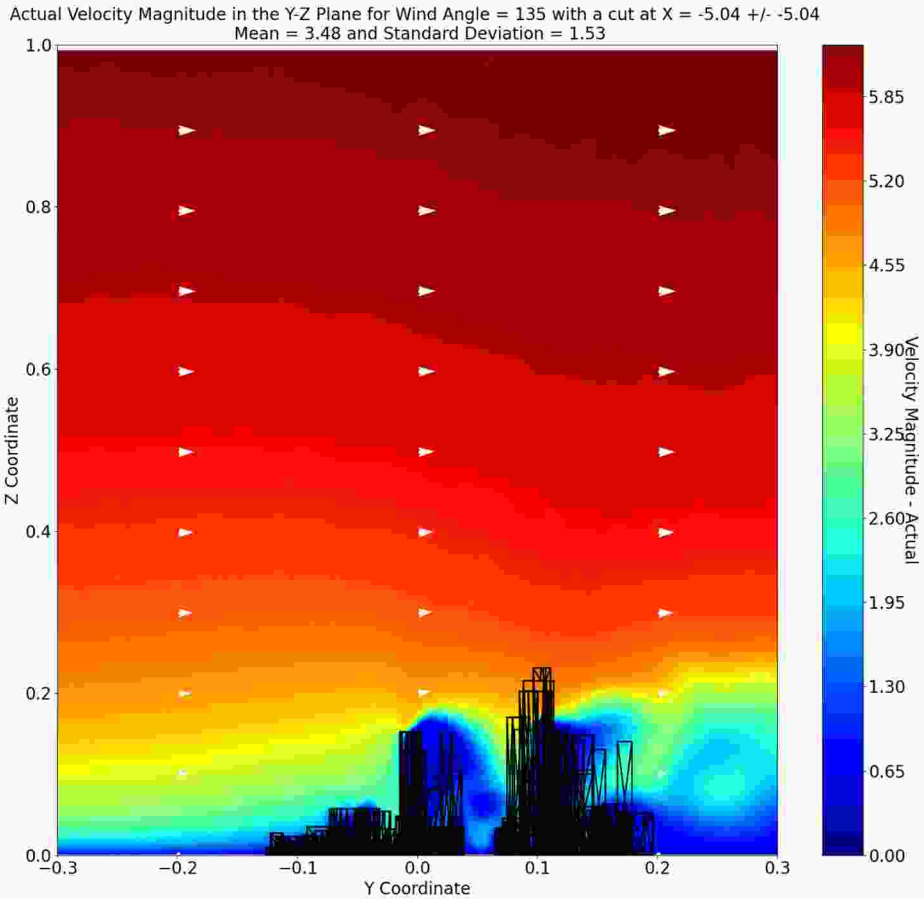
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

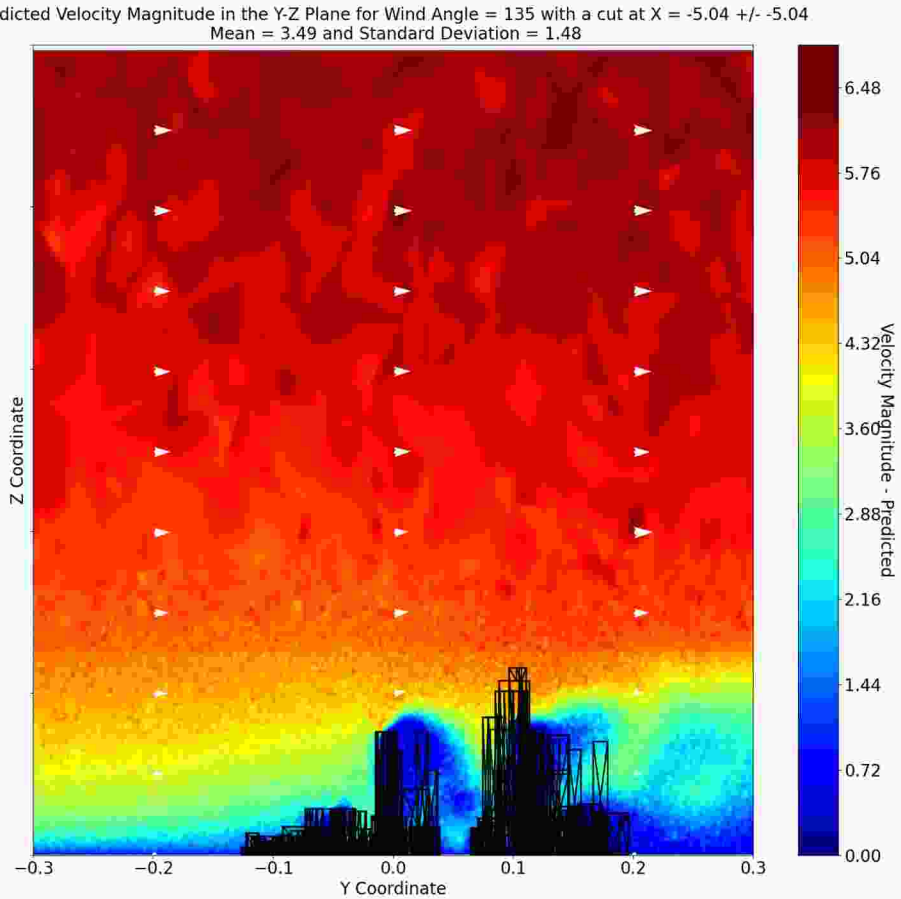




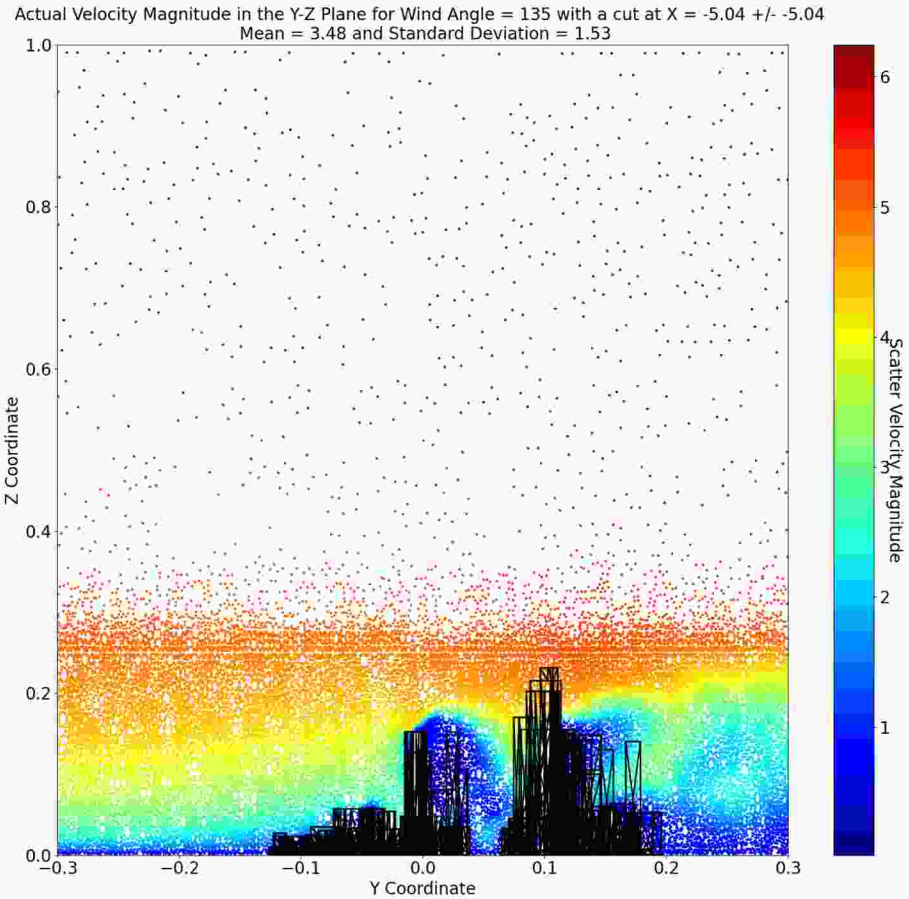

Pressure_Difference in the Y-Z Plane for Wind Angle = 135 with a cut at X = -5.04 +/- -5.04 with mean = 0.02 and std dev = 0.24
Z Coordinate
Y Coordinate
Scatter Pressure_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
2
1
0
−1
−2

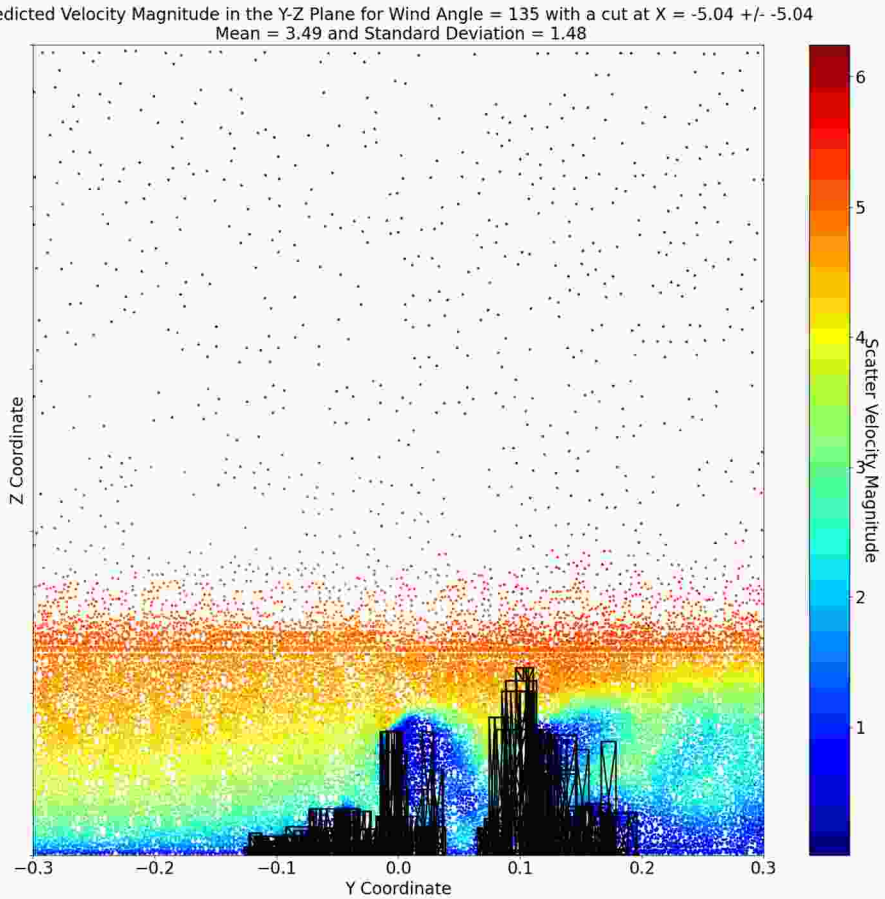
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

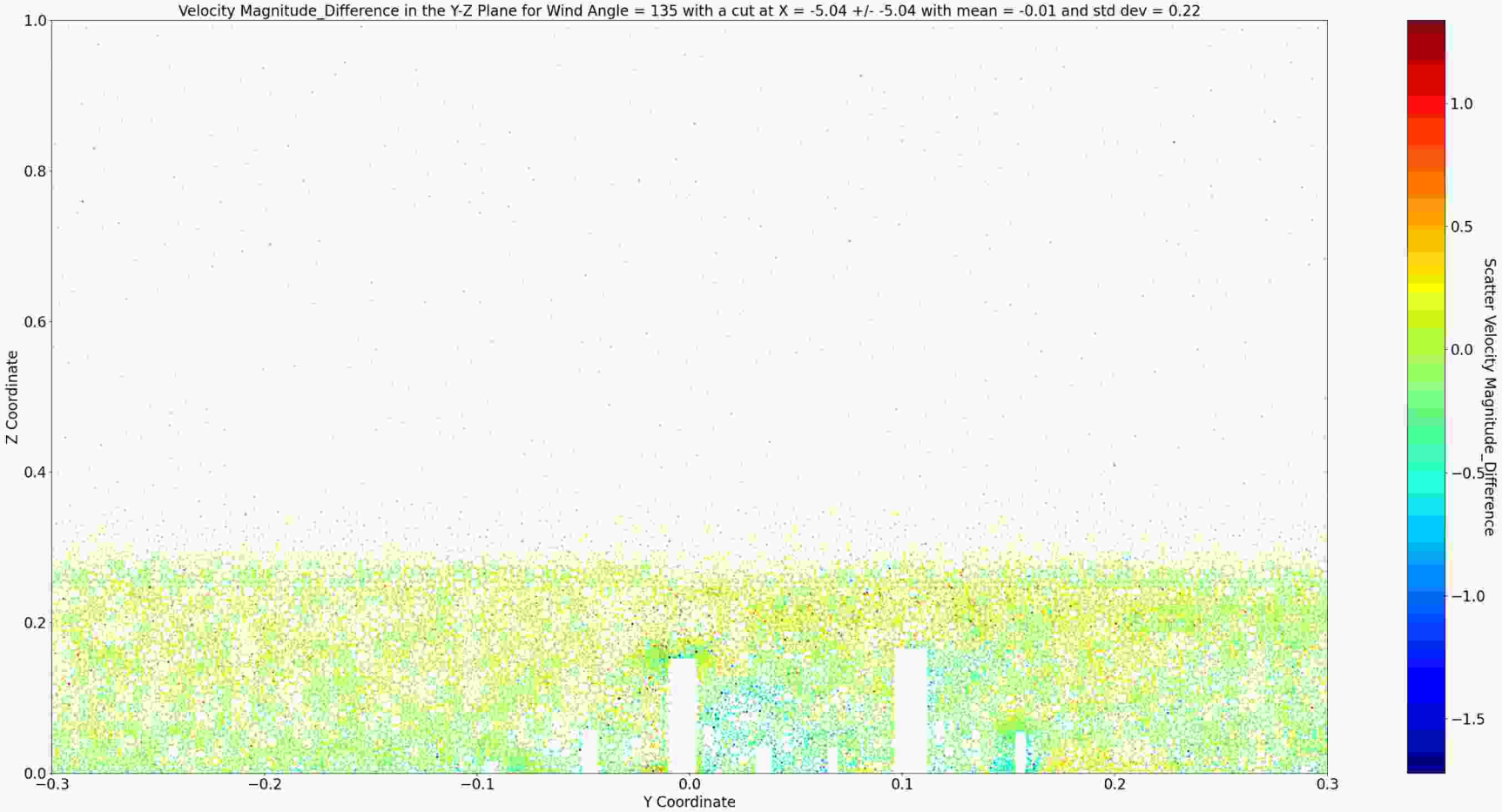




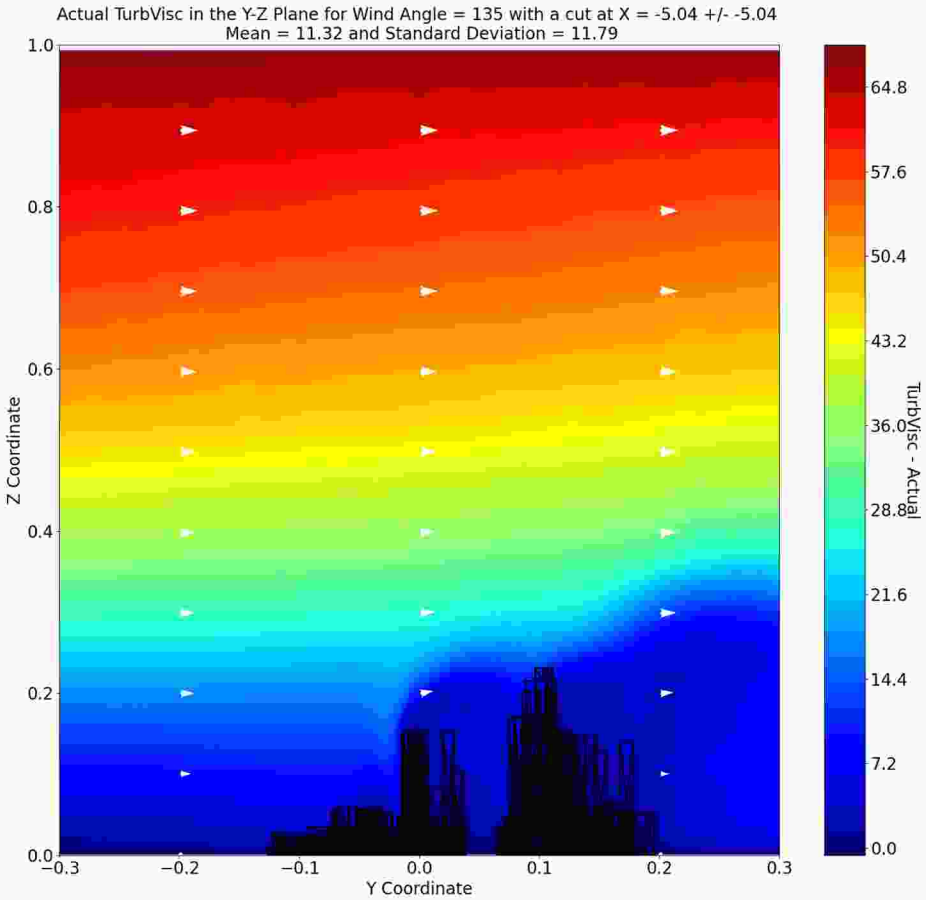
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

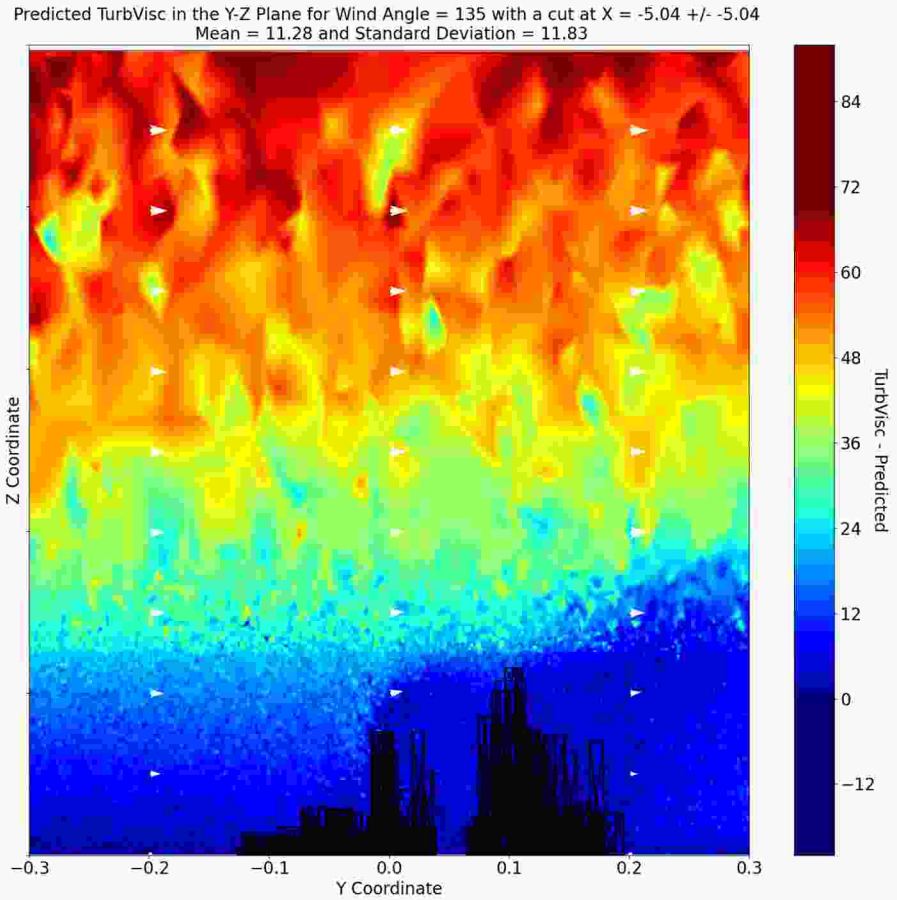




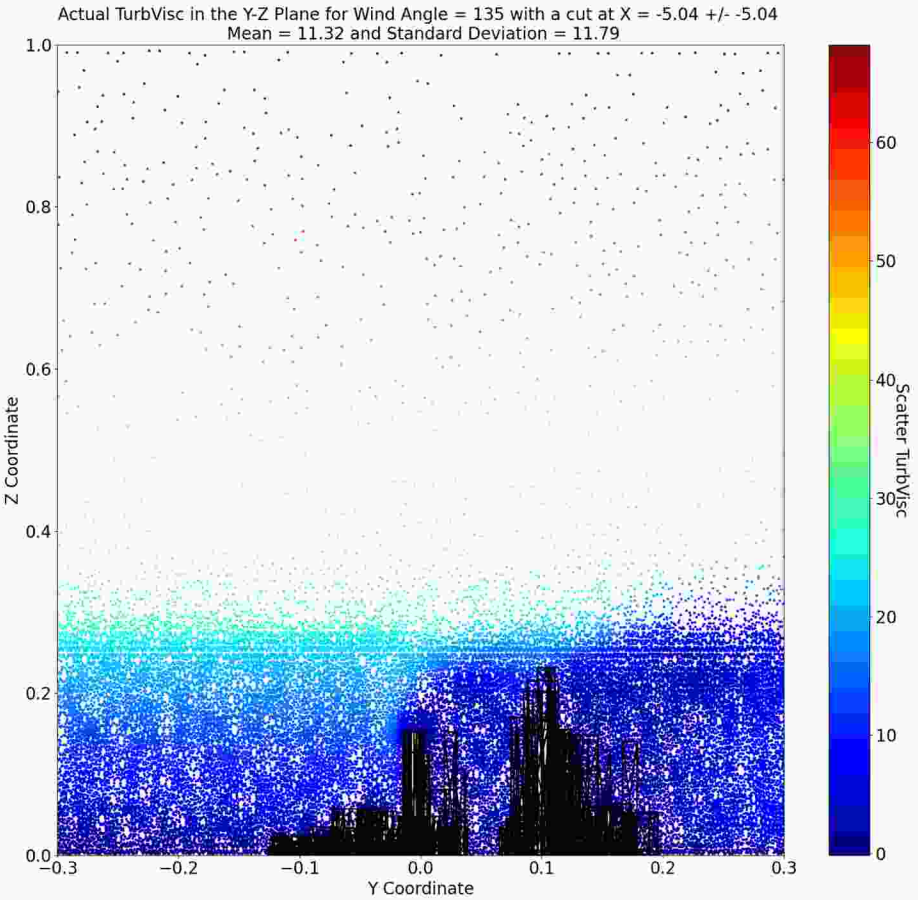

Velocity Magnitude_Difference in the Y-Z Plane for Wind Angle = 135 with a cut at X = -5.04 +/- -5.04 with mean = -0.01 and std dev = 0.22
Z Coordinate
Y Coordinate
Scatter Velocity Magnitude_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
1.0
0.5
0.0
−0.5
−1.0
−1.5

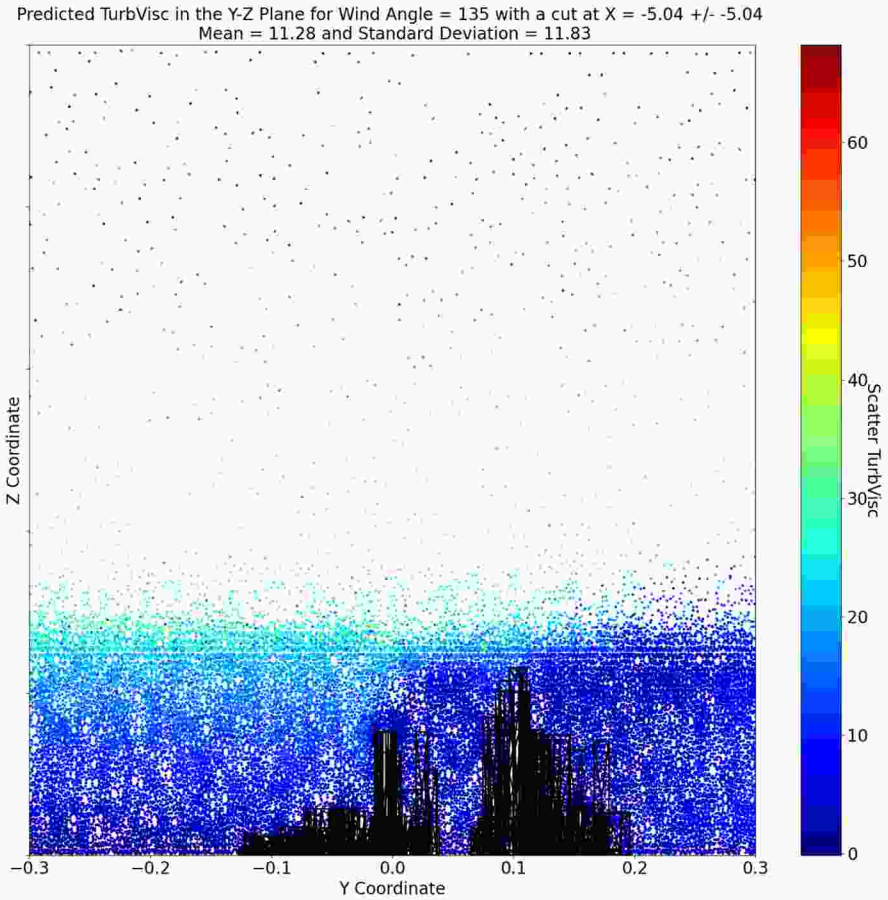
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

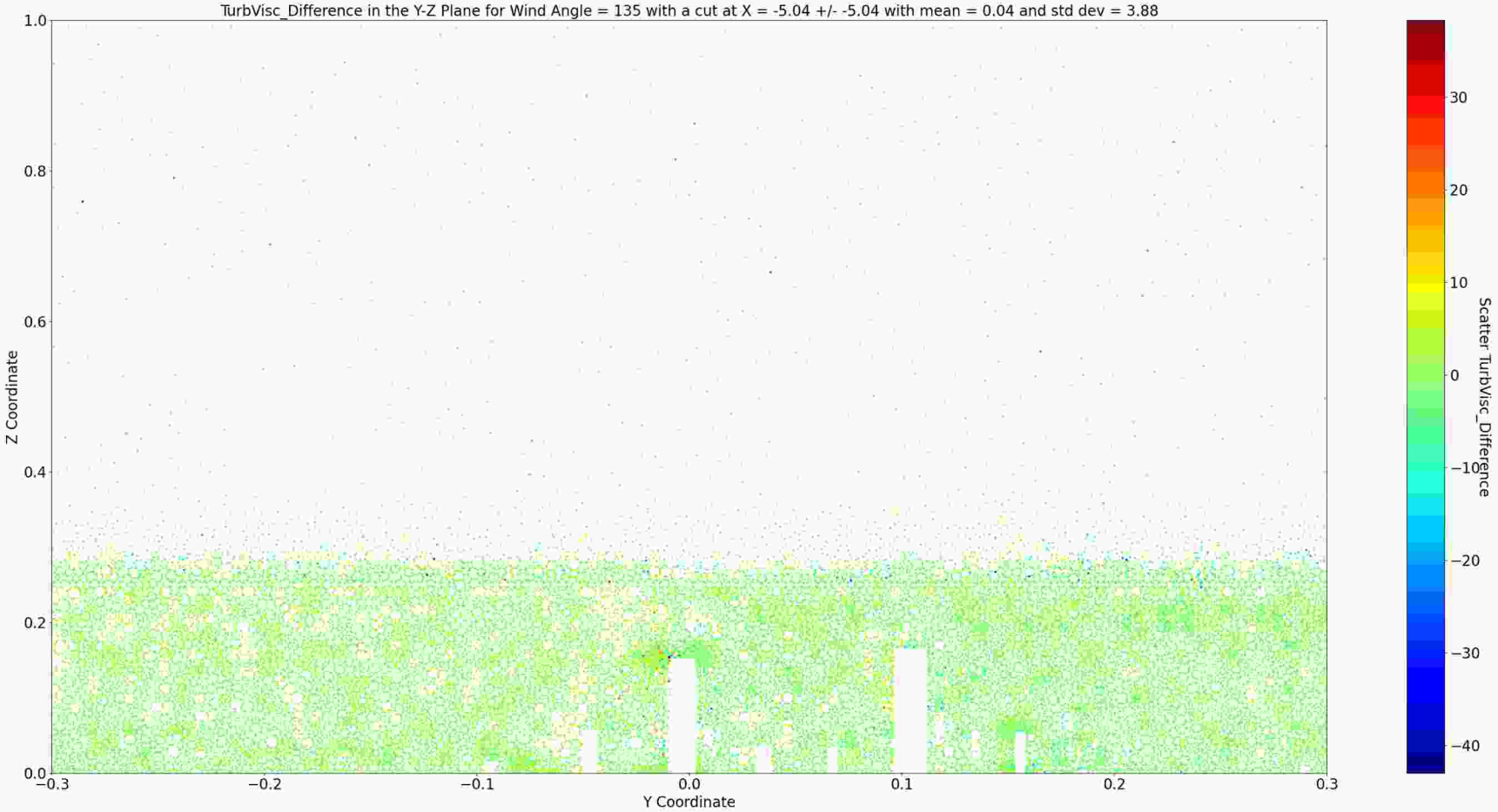




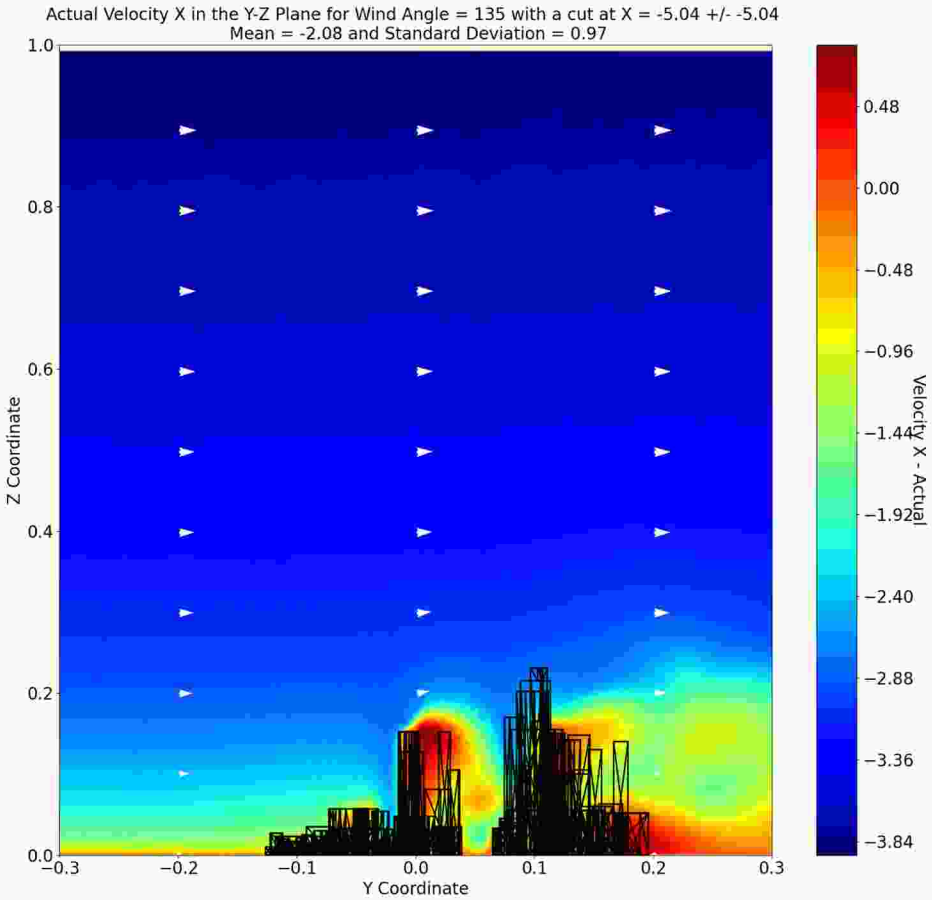
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

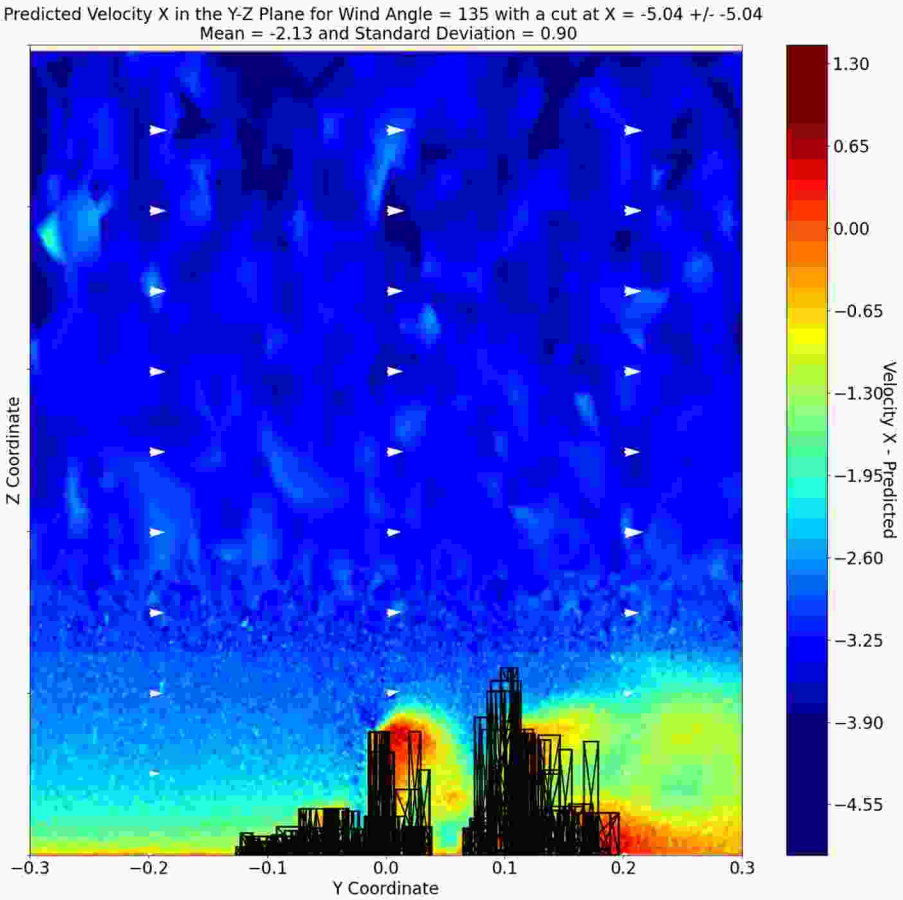




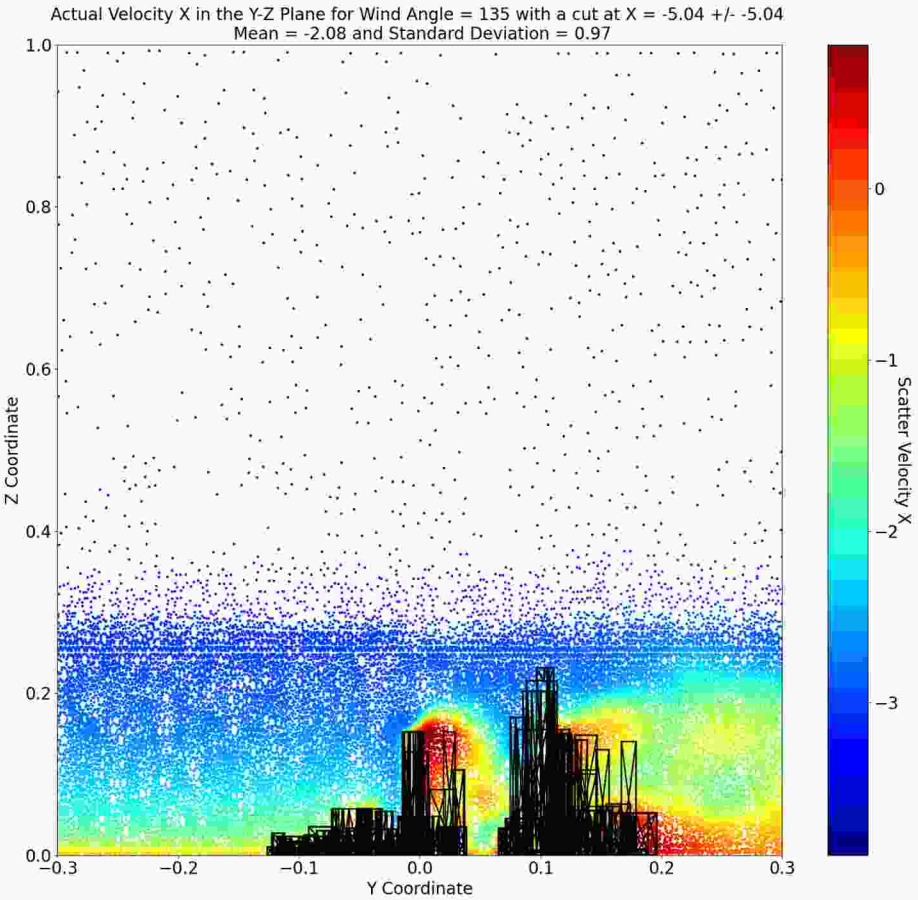

TurbVisc_Difference in the Y-Z Plane for Wind Angle = 135 with a cut at X = -5.04 +/- -5.04 with mean = 0.04 and std dev = 3.88
Z Coordinate
Y Coordinate
Scatter TurbVisc_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
30
20
10
0
−10
−20
−30
−40

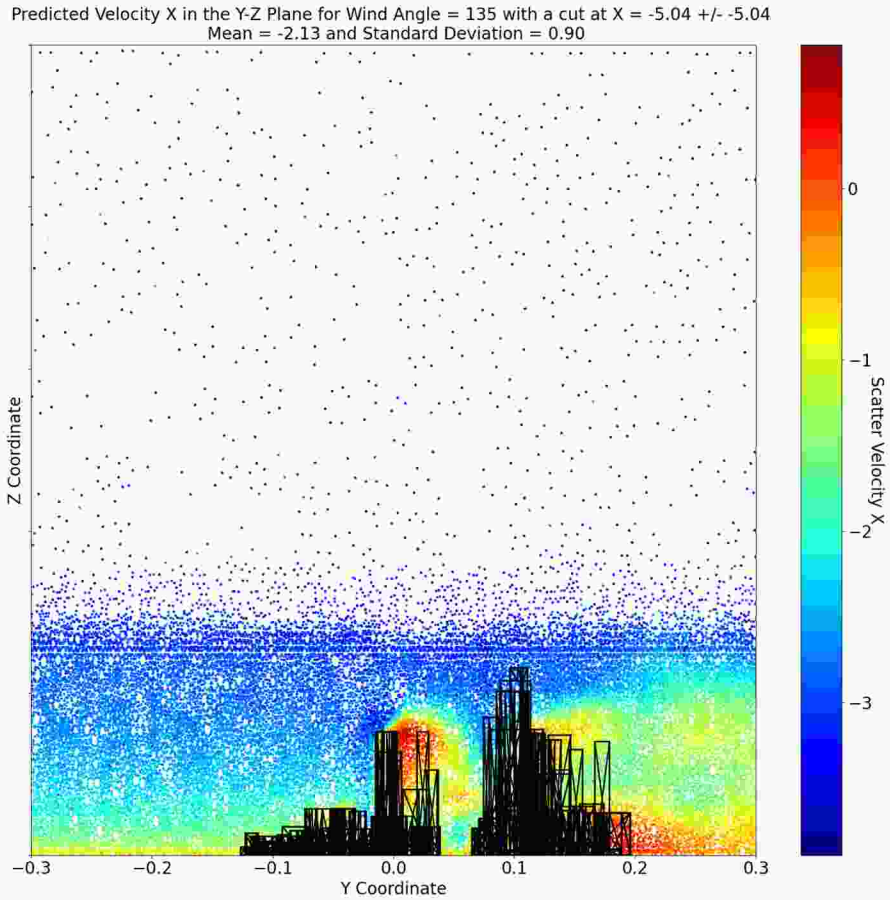
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

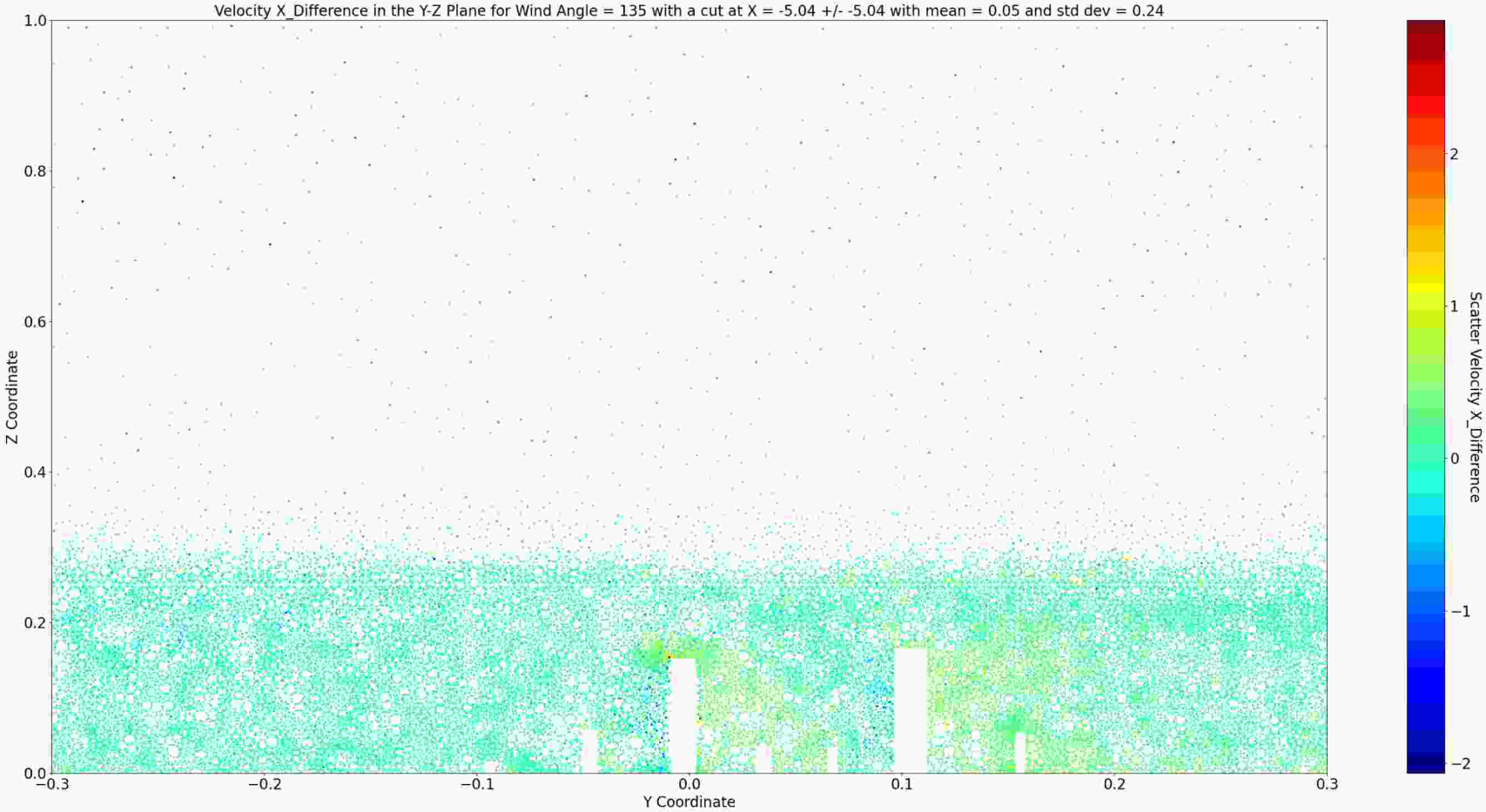




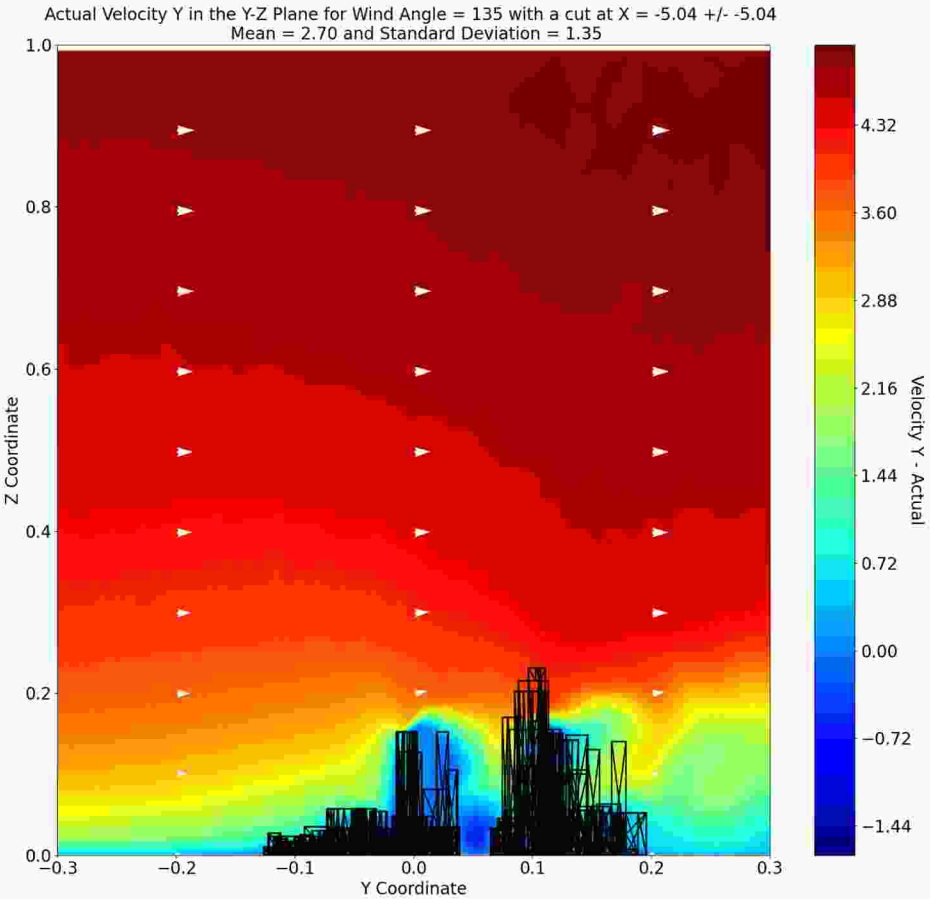
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

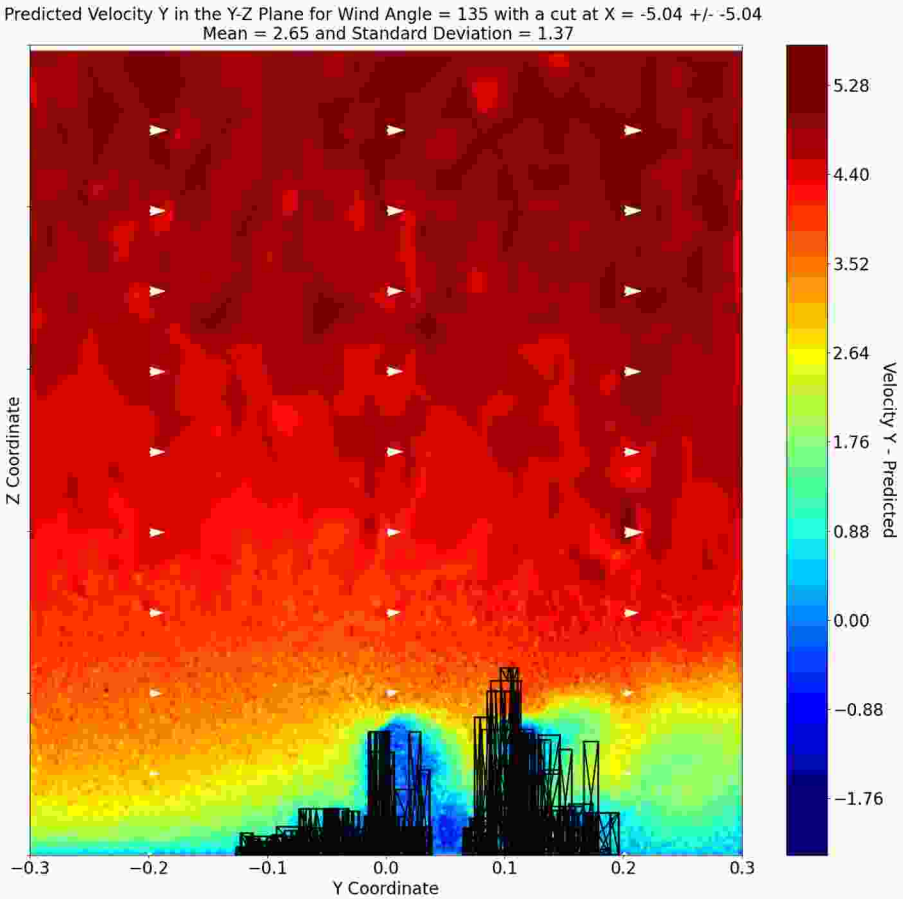




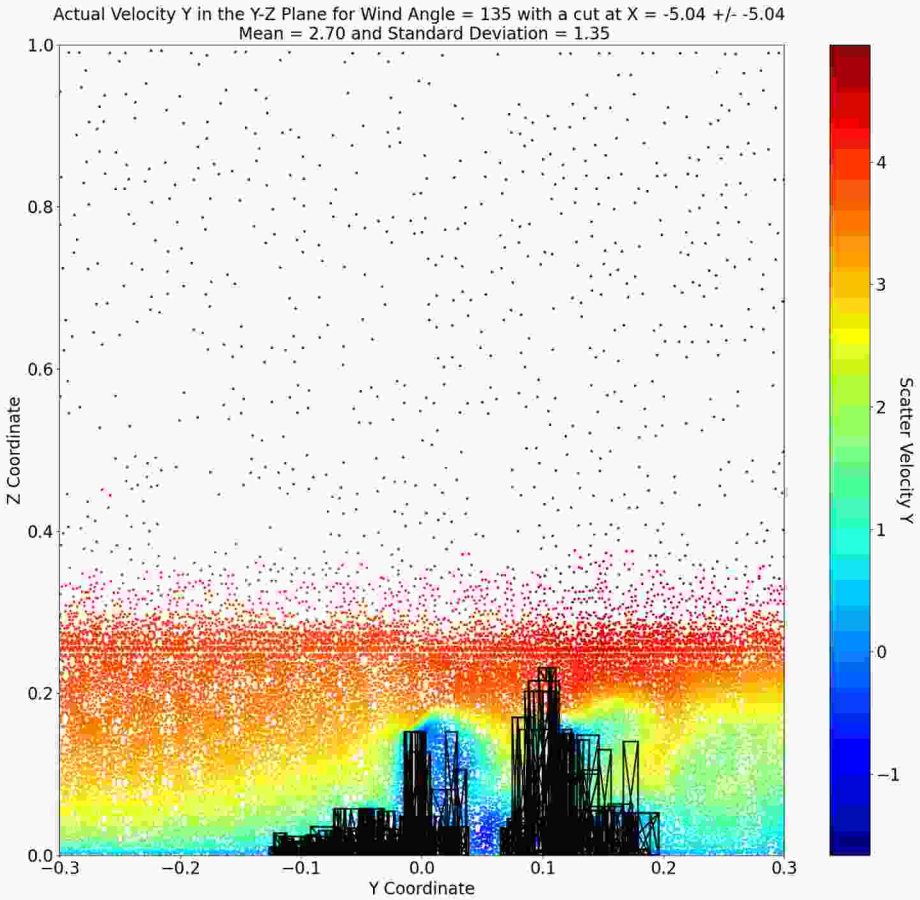

Velocity X_Difference in the Y-Z Plane for Wind Angle = 135 with a cut at X = -5.04 +/- -5.04 with mean = 0.05 and std dev = 0.24
Z Coordinate
Y Coordinate
Scatter Velocity X_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
2
1
0
−1
−2

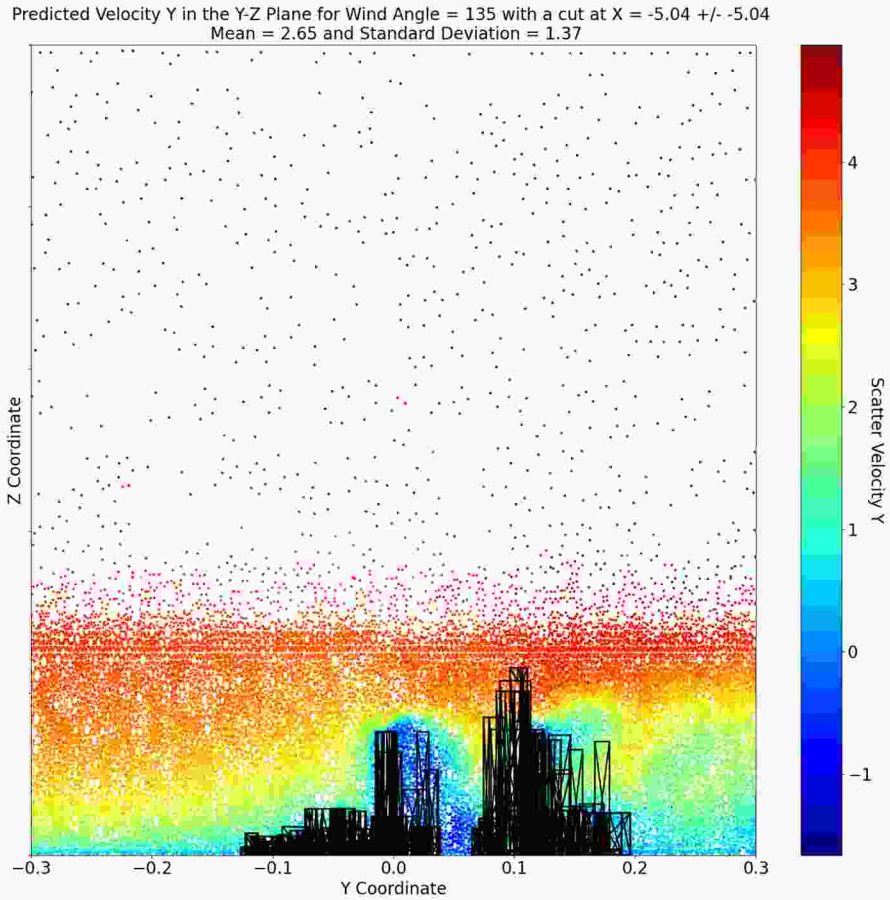
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

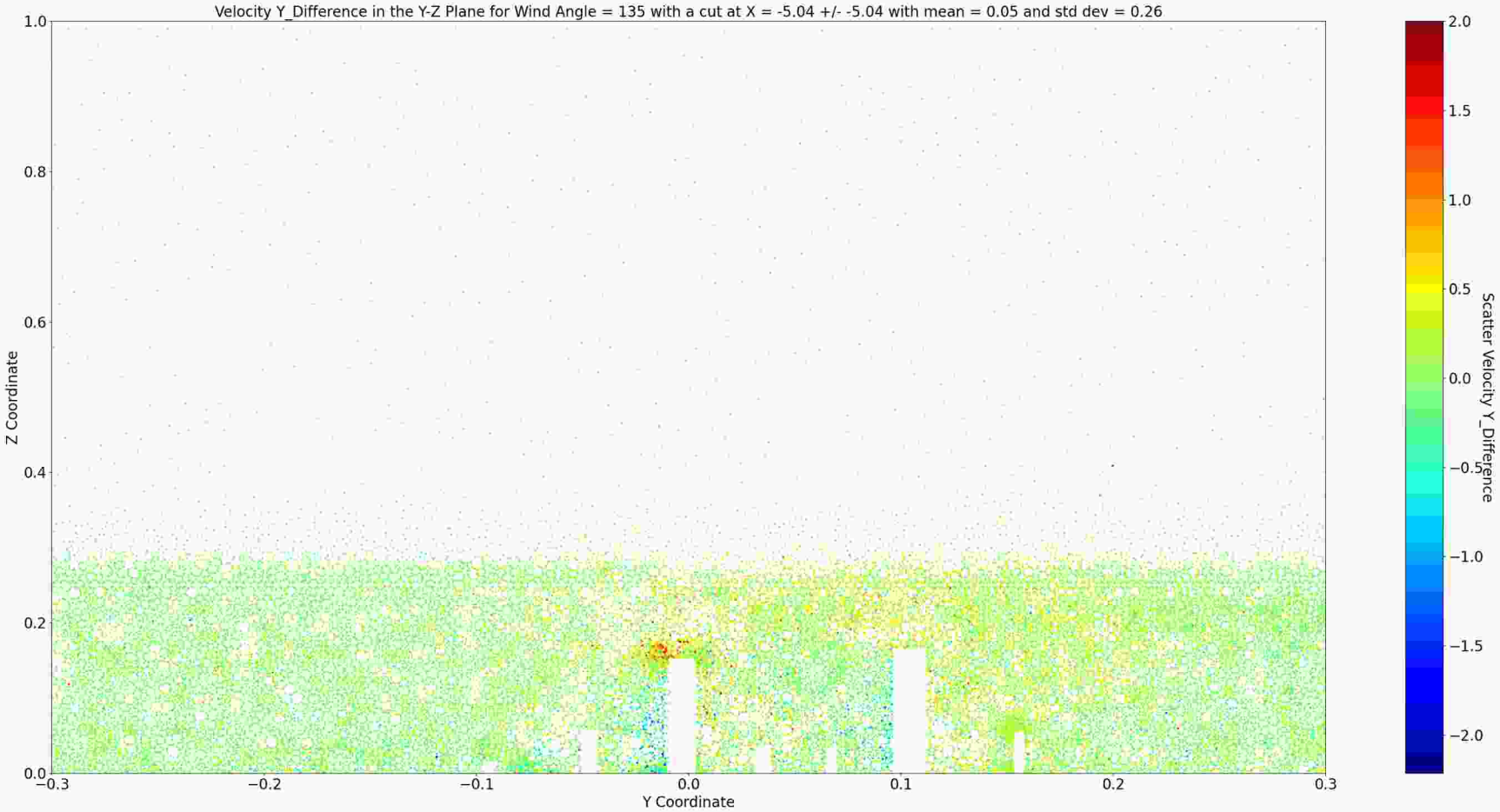




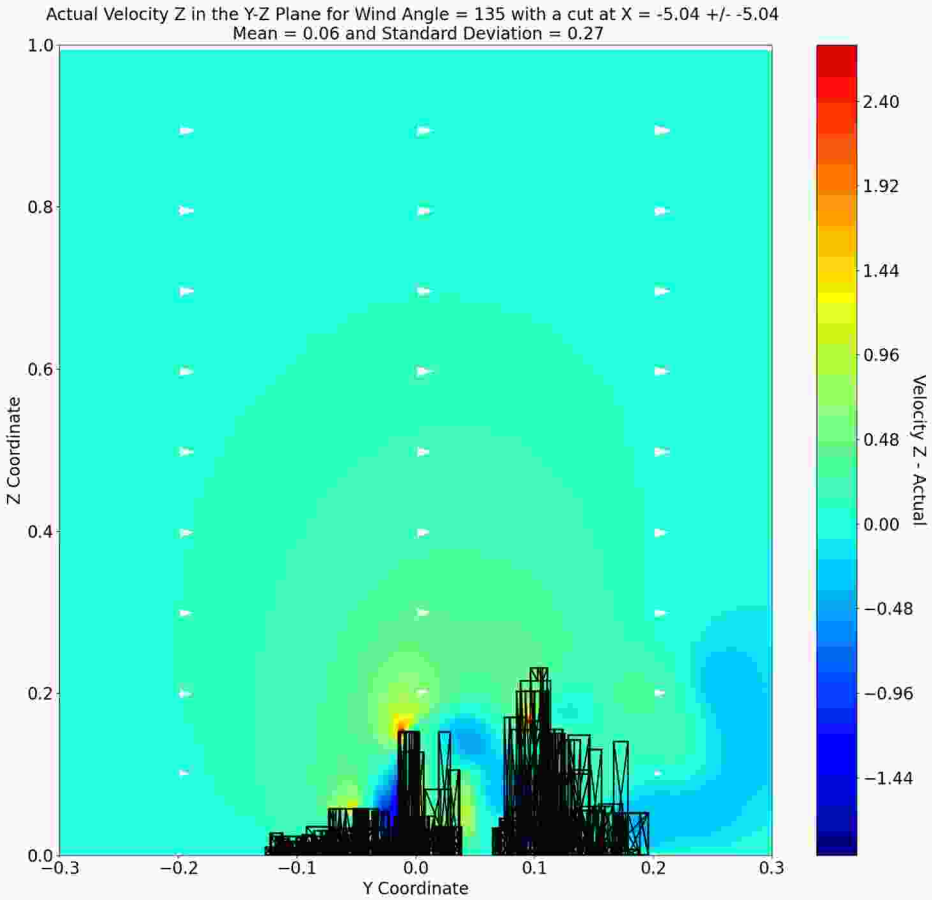
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

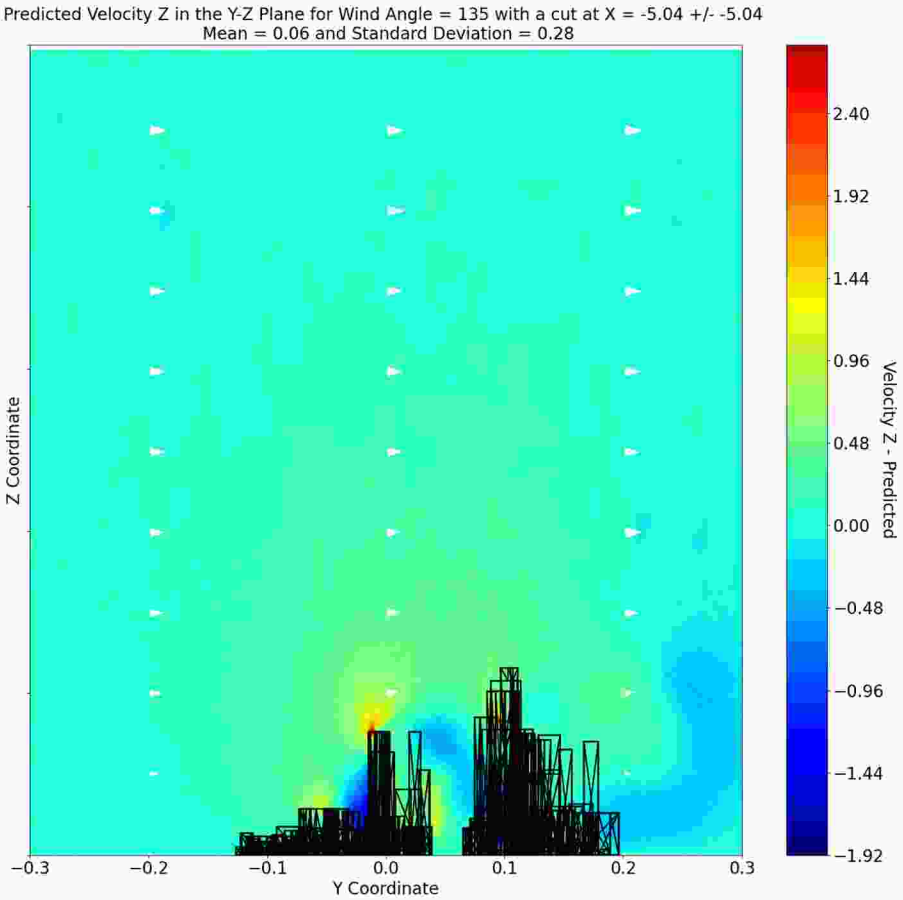




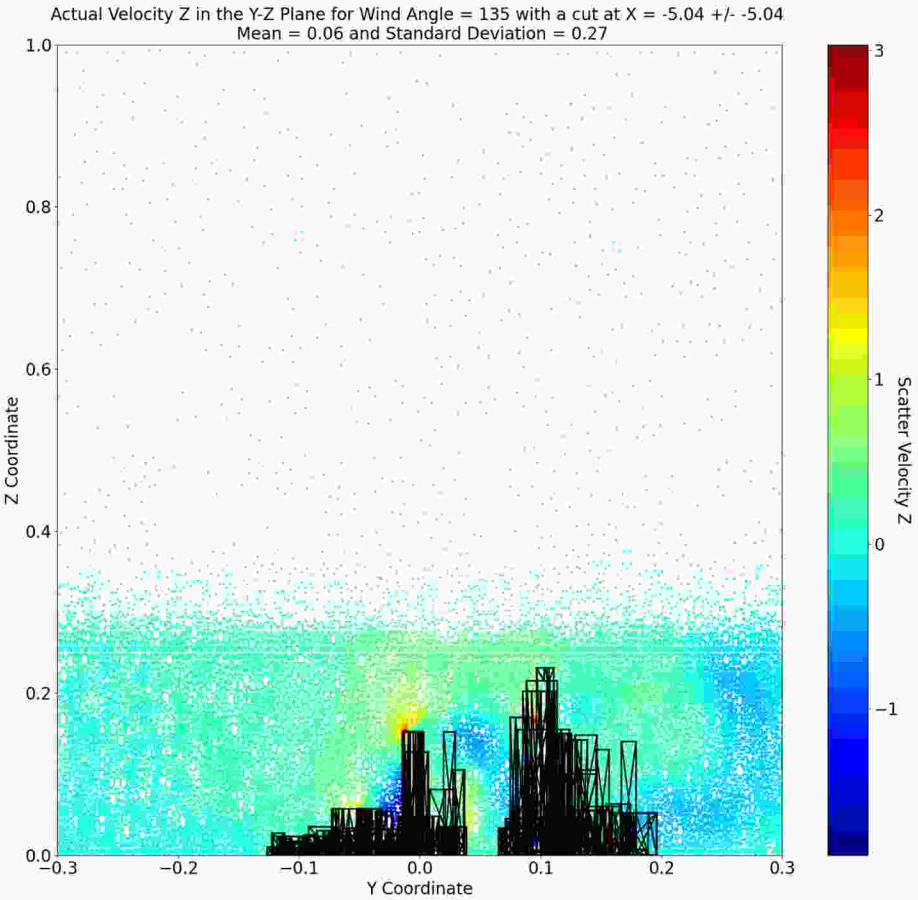

Velocity Y_Difference in the Y-Z Plane for Wind Angle = 135 with a cut at X = -5.04 +/- -5.04 with mean = 0.05 and std dev = 0.26
Z Coordinate
Y Coordinate
Scatter Velocity Y_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
−2.0

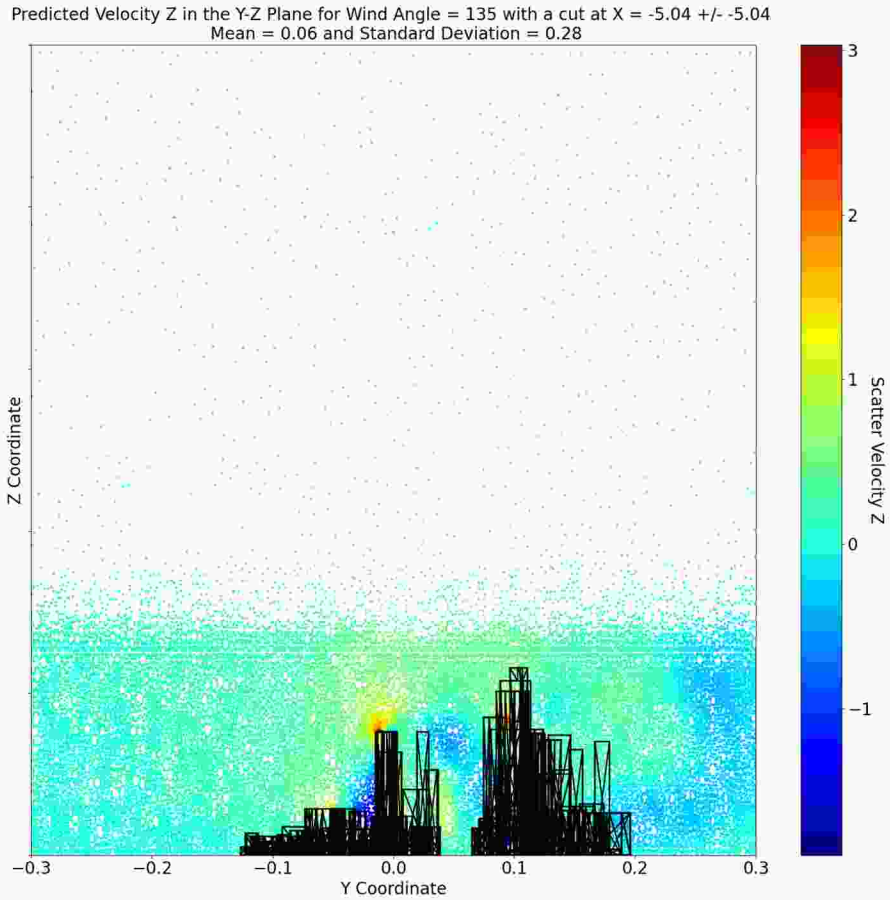
Comparison of Actual vs. Predicted values with Wind Angle = 135 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04

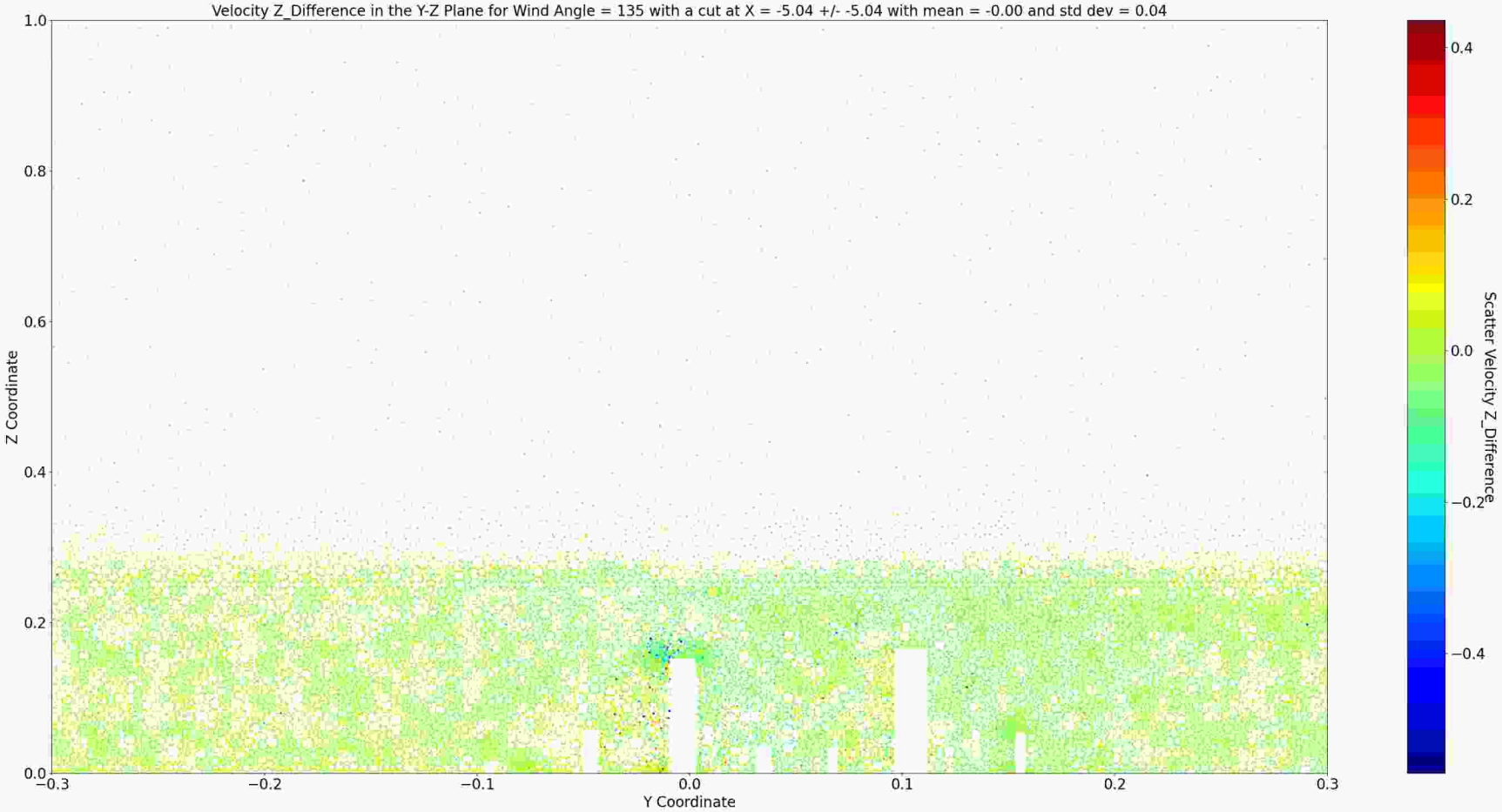




Comparison of Actual vs. Predicted values with Wind Angle = 135 in the Y-Z Plane with a cut at X = -5.04 +/- -5.04






Velocity Z_Difference in the Y-Z Plane for Wind Angle = 135 with a cut at X = -5.04 +/- -5.04 with mean = -0.00 and std dev = 0.04
Z Coordinate
Y Coordinate
Scatter Velocity Z_Difference
1.0
0.8
0.6
0.4
0.2
0.0
−0.3
−0.2
−0.1
0.0
0.1
0.2
0.3
0.4
0.2
0.0
−0.2
−0.4